OKLAHOMA
DEPARTMENT OF
WILDLIFE
CONSERVATION

EVALUATING THE R3 POTENTIAL OF CLOSE TO HOME PONDS IN OKLAHOMA

Contents

Key Results

- Responses were received from 248 lapsed anglers, 680 active anglers, and 491 individuals from the general population who said they had never fished before.
- Lapsed anglers reported their highest barrier to fishing as “other priorities” (48%). The second most selected answer was “nowhere to go” (14%) and “too expensive” (13%). Active anglers' top barriers to fishing as much as they would like to were “other priorities” (61%), “not enough time to drive to fishing spots” (40%), and “don’t know where to go” (34%). New anglers’ top barriers to not having fished in the past were “don’t know where to go” (48%) and “no equipment” (48%).
- Most lapsed anglers are either very interested (56%) or interested (26.2%) in fishing again in the future.
- All anglers rated aesthetic reasons as most important to them when fishing in Oklahoma. Relaxing in nature and spending time with friends and family were the most frequently selected options by all groups.
- Eighty-two percent of lapsed anglers, 77% of active anglers and 95% of non-anglers said they had not heard of the CTH fishing program. After learning about the program, 82% of lapsed individuals said they would be more likely to resume fishing. Seventy-seven percent of active anglers stated that knowing about CTH ponds would increase their likelihood to fish as much as they would like.
    - Active anglers who have used CTH ponds were more likely to be male and to be younger anglers, aged 18-34.
- Lapsed anglers selected bass most often as their preferred species at CTH ponds. Catfish was the second most selected species, followed by the selection of “no preference”. Active anglers also most often selected bass.
    - Non-white anglers were more likely to select catfish, while white anglers were more likely to select bass.
- Dock access was of medium priority for lapsed and active anglers, while safety and bank fishing were denoted as high priority most often. Non-anglers also stated they would expect a fishing location to be safe.
    - This differed by gender, with women considerably more likely to assign safety as essential compared to men.
- Lapsed anglers were not overly interested in educational clinics being held at the ponds, but if there were clinics, they would most want information on

techniques, bait, and tackle, and where to go. Learning how to clean and cook a fish was less popular than others. About a quarter of new anglers would be interested in attending a fishing clinic to learn how to fish.

- Lapsed anglers also noted having enough time as the main reason keeping them from fishing. If people they knew asked to be taken fishing, and if places were more convenient and cheaper, this would also encourage activity.
- Fifty percent of active anglers have friends or family who would be interested in fishing. Non-white anglers reported a higher interest in their social pool than white anglers, as did those who make $75,000 or less per year.
- Individuals rated themselves most often as intermediate in terms of fishing skill, and 41% said they would be somewhat confident in teaching others to fish, with 68% of active anglers saying that having CTH ponds would increase their likelihood of taking someone fishing
- Sixty-one percent of new anglers currently visit city parks, and when visiting a new location, they want to know about safety and parking.

Introduction

At the Oklahoma Department of Wildlife Conservation (ODWC), one of our primary goals is to provide outdoor recreation areas where people can enjoy the outdoors. Additionally, we want these areas to be convenient and meet the needs and wants of our constituents. Recognizing that many of our constituents struggle to find suitable recreation options, the Department established the Close to Home Fishing program in 2002 (hereafter referred to as CTH). As part of this program, ODWC partners with municipalities in urban and suburban areas by stocking ponds with fish and providing minimal site maintenance. Currently, 46 ponds are available to anglers in metro areas across the state (Fig. 1).

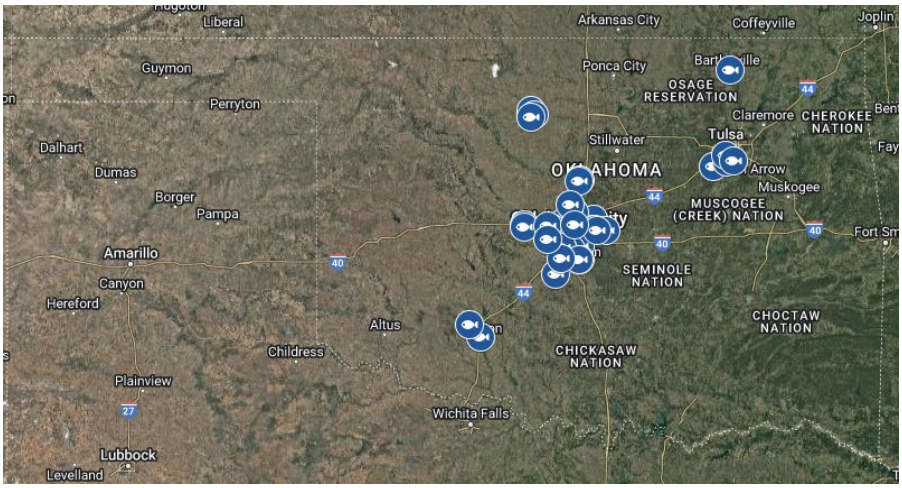

Figure 1: Locations of CTH ponds across Oklahoma

Intermittent creels are conducted at these ponds to determine the types of anglers using them and what they are targeting. The fisheries division desired a more comprehensive survey to understand users and non-users. Within the non-users, they were also interested in current licensees and why they don't use them, as well as the use of CTH ponds to recruit non-license holders. With this in mind, we approached this project from an R3 mindset (Recruit, Retain, and Reactivate). This is a nationwide effort to **recruit** new license holders, **retain** current license holders, and **reactivate** those who previously held an active license but have not purchased one in the last three years.

Methods

This effort consisted of three separate surveys. One was conducted online via Survey Monkey, and the others used a push-to-web methodology, with a QR code postcard sent to those selected to participate.

Sampling

Three separate samples were selected. For each sample, we selected only anglers who live within 15 minutes of a CTH Pond, which encompassed the shaded zip codes depicted in Figure 2.

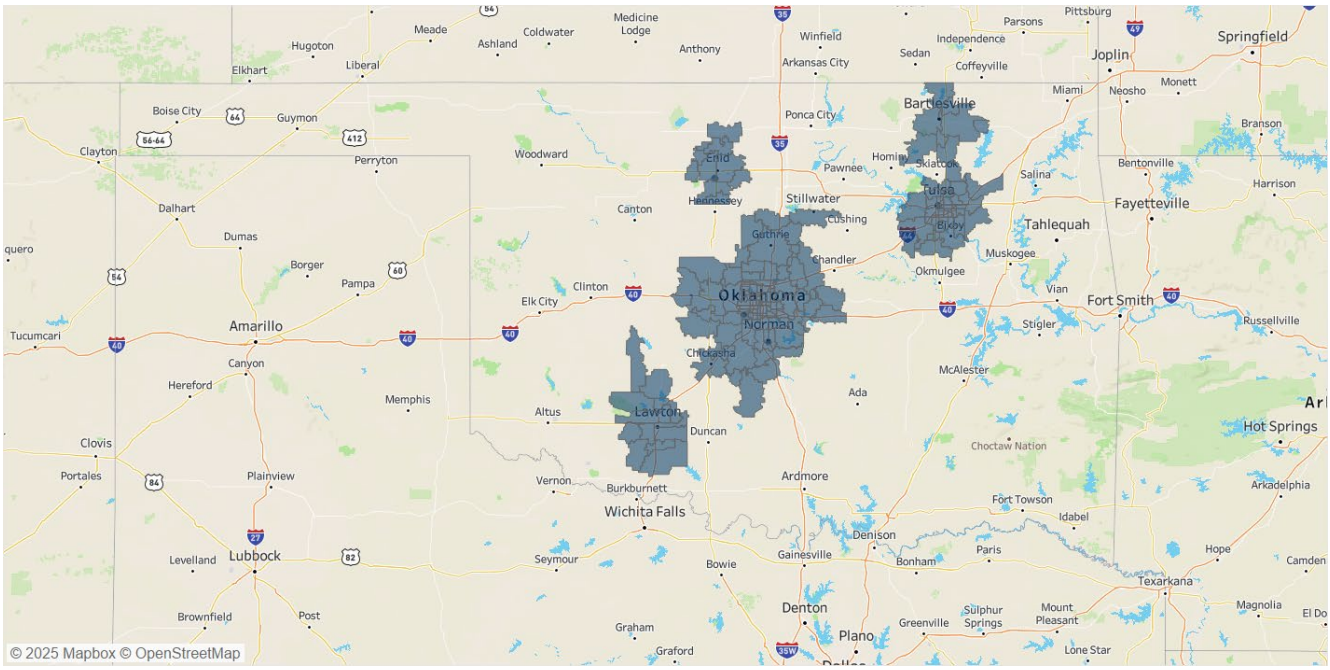

Figure 2: Selected urban and suburban zip codes sampled due to their proximity to CTH ponds in Oklahoma.

We first purchased a random sample of 30,000 individuals within the designated zip codes from a private marketing company, Giant Partners. We also pulled population files from our license database of active anglers and lapsed anglers. Active was defined as anyone with active fishing privileges within the last 12 months, and lapsed was defined as anyone who had not purchased a license in the three years preceding the study. We compared the active and lapsed populations to the general population as accurately as possible by matching them based on first name, last name, city, and zip code. We removed any overlap in individuals between the general population

sample and the other samples. From the population files of active and lapsed anglers, we randomly selected 6,000 individuals from each group.

Fielding

General population survey

A total of 27,996 individuals were emailed the public CTH survey. Due to limitations in our SurveyMonkey account, this survey had to be sent in three groups, as we can only send 10,000 survey invitations per day. For each iteration of this survey, a total of three emails were sent: an invitation, a reminder three days later, and a final reminder six days after the initial reminder. One group began data collection on April 17, 2025, and the other two groups began fielding on May 12 and May 13. The general population survey was closed to all groups on May 30, 2025.

Active and lapsed surveys

For both the active and lapsed surveys, we first sent a letter explaining the project to 11,772 individuals, inviting them to participate and letting them know we would send a postcard with a QR code in the coming days. This invitation letter was sent on April 2, 2025. We sent the first QR code postcard on April 18, 2025, and the reminder postcard on May 6, 2025. In addition to these two postcards, we also sent email invitations to those with a valid email address on file. Two emails were sent to each group on April 23, 2025, and April 29th, 2025. Surveys were closed to further responses on May 30th, 2025.

Topics of Interest

Each survey had a different data-collection goal/research question. These goals covered: recruiting new anglers, retaining active anglers, and reactivating lapsed anglers through our CTH ponds. We wanted to know if the ponds currently serve this purpose and, if not, what could be altered to enable them to do so. We also wanted to know the demographics of users or potential users.

General population survey questions (recruitment- appendix A)

The survey began by asking if individuals had ever fished in Oklahoma. This question did not serve to disqualify anyone. Still, it allowed us to subset individuals as non-anglers for recruitment or sort them into a lapsed or active group, in case our pre-vetting process of removing those in our license database missed them. If individuals

had been fishing, we asked how long it had been since they last went fishing. Then, we asked all respondents if they would be interested in fishing in the future. If they selected 'no', they were disqualified from further questions. Those interested were asked why they were interested and what had prevented them from fishing in the past. Then we wanted to know if they knew anyone else who fishes and who they would like to learn from. We asked them whether they had heard of our CTH fishing ponds and whether these ponds made them more likely to try fishing. To better understand how people feel about visiting these areas, we asked them what amenities they would expect at the fishing location and whether they knew how to purchase a license. We also wanted to see whether they feel that being outside generally benefits their mental health, as this may be a way we can frame recruiting them to fish. Then we asked if they visit city parks, which could be a gateway to getting them to our CTH fishing locations. If they visit parks, we wondered what they would like to know about a park before visiting, which could help us improve our communication about our areas. We ended with demographics of age, gender, income, and race/ethnicity, and included an open-ended comment box.

Lapsed survey questions (reactivation- appendix B)

Our first question to this group was why they have not purchased a license in the last three years, followed by whether they would be interested in fishing again. If they were “not at all interested”, they were presented with no further questions, but demographic information was still collected. If they were interested, we asked what was important to them when fishing and if they had heard of the CTH program. If yes, we asked if they had fished a CTH pond. If they had fished a CTH pond, we asked about their satisfaction with the experience. If they had not fished a CTH pond, we presented what these ponds are and asked if they would make them more likely to restart fishing. Then, as experienced anglers, we asked about their interest in various fish to target and what amenities at a location they would prioritize. We previously asked what is generally important to them about fishing, but also wondered if their important aspects would change at a CTH pond. As part of their restart into fishing, we inquired about their interest in fishing clinics, the topics they might be interested in, and what would make them more likely to start again. Demographic questions and an open-ended comment box followed this.

Active survey questions (retention and assistance in recruitment of new anglers- appendix C)

We began this survey with a similar question: What is most important to them about fishing in Oklahoma? This was followed by an inquiry about whether they fish as often as they would like. If they said no, we asked them what factors prevent them from fishing as much as they would like. We presented CTH fishing ponds and asked if these would help them fish as much as they would like. We then asked about their familiarity with CTH ponds and if they had used these areas. If they have, we asked which ponds they have used most recently and to give us feedback on that specific area, including the cleanliness of the water and surrounding area, if they felt welcome, and if they were satisfied or unsatisfied with the area, and finally, how likely they would be to recommend CTH fishing areas generally. We also asked this group about species preference at CTH ponds and how they prioritize different amenities. We also wanted to compare the importance of various aspects in general and how they change with CTH ponds. We then asked a series of questions about their use of these ponds to recruit others, including whether they have friends or family who don't fish but might be interested, and how they would rate their angling skill and their comfort level teaching others to fish. We then asked whether they had taken someone in the last year and, if not, whether these ponds would make them more likely to take someone in the future. We ended the survey with demographic questions and an open-ended comment box.

Analysis of Data

Differences between categorical variables were detected using the chi-square test. Multiple means were compared using a one-way ANOVA. When determining differences in binomial variables, we used logistic regression to determine the relationship between responses. All tests were considered significant at $P \leq 0.05$.

Results

Response rate and demographics

When the survey closed on May 30, 2025, we had 491 responses to the general population survey, 248 to the lapsed survey, and 680 to the active survey (Table 1). The demographics of the respondents are presented in Table 2.

Table 1: Sample size and response rate of three separate survey efforts

Population	Surveyed	Response	Response rate
General population	27,308	491	2.6%***
Lapsed anglers	6,000	248	4.1%
Active anglers	6,000	680	11.3%

***Used AAPOR response rate calculator to consider non-contacts for the 17,888 who did not open the survey invitation email.

Table 2: Demographics of respondents to each survey effort

Demographic Variable	Category	General Population	Lapsed	Active
Age	18-24	0.9%	4.2%	4.5%
	25-34	5.2%	16.3%	9.4%
	35-44	19.3%	24.3%	18.0%
	45-54	22.2%	22.6%	19.0%
	55-64	22.8%	21.8%	18.5%
	65-74	22.2%	9.6%	22.3%
	75 or older	6.6%	1.3%	7.7%
	Prefer not to say	0.9%	0.0%	0.6%
Gender	Male	56.2%	58.9%	78.6%
	Female	42.4%	40.7%	20.8%
	Prefer not to say	1.4%	0.4%	0.6%
Income Level	Under $49,999	25.4%	24.7%	22.9%
	$50,000-$99,999	29.1%	35.6%	33.9%
	$100,000-$150,000	16.7%	14.7%	15.9%
	Over $150,000	15.0%	12.1%	9.4%
	Prefer not to say	13.9%	13.0%	17.9%
Race or Ethnicity	Another race or ethnicity	1.8%	1.7%	0.6%
	Asian	0.9%	0.8%	2.0%
	Black or African American	5.6%	5.0%	2.9%
	Hispanic or Latino	2.0%	4.6%	3.3%

	Multiracial or Multiethnic	0.9%	2.5%	0.9%
	Native American or Alaska Native	8.8%	2.9%	7.3%
	Prefer not to say	5.8%	7.1%	5.9%
	White	74.3%	75.2%	77.1%

Weighting of Data

When the survey closed, across both lapsed and active surveys, we wanted to ensure the data was representative of these populations in our license database. To achieve this, we examined the breakdown of respondents by gender and age. We have gender and age information in our license database, but we do not have income level or race/ethnicity data. To determine the effect of nonresponse bias, we calculated the effect size in the gender proportions between respondents and nonrespondents for the lapsed sample and response, as well as the active sample and response. We also calculated Cohen's d and conducted a t-test to assess age differences between respondents and nonrespondents in the active and lapsed datasets. The only demographic with a large effect size and a significant difference in means when comparing via a Welch's two-sample t-test was the age breakdown of lapsed anglers who responded to the survey and those who did not. To maintain consistency in our analysis, we opted to apply cell weighting. This is done by examining the proportion of your sample that fits into a table organized by age and gender and comparing it to a similar table of the population. Weights are applied to the sample so that answers are weighted up or down to obtain similar proportions of your sample to your population by age and gender. Weights were applied to the respondent data as shown in Table 3. All analyses that aim to represent the population of lapsed or active anglers incorporate weighting factors. When an analysis represents a demographic group, those responses have not been weighted. We applied weights to analyses in R using the svydesign function from the survey package. We did not apply weighting factors to the general population responses, as we have no reference population demographics for metropolitan-based non-license holders.

Table 3: Survey weights applied via cell weighting methodology to response data from active and lapsed surveys

Active			Lapsed		
	Male	Female		Male	Female
18-24	2.00	2.00	18-24	2.67	4.00
25-34	1.43	1.50	25-34	1.67	1.13
35-44	0.93	1.00	35-44	1.00	0.90
45-54	0.75	1.00	45-54	0.92	0.58
55-64	0.73	0.75	55-64	0.69	0.67
65-74	0.71	1.00	65-74	0.80	0.50
Over 75	1.83	2.50	Over 75	1.00	1.00

General Population

Since the sample we received from Giant Partners did not explicitly include individuals who had never held a license, we first asked individuals, "Have you ever fished in Oklahoma?" and then asked when they last fished in Oklahoma (Figure 3). We decided, for analysis, to include only those who have never fished (n=105) and those who have not fished for over 10 years (n=75) in our group of individuals who could be considered for recruitment to fish in Oklahoma.

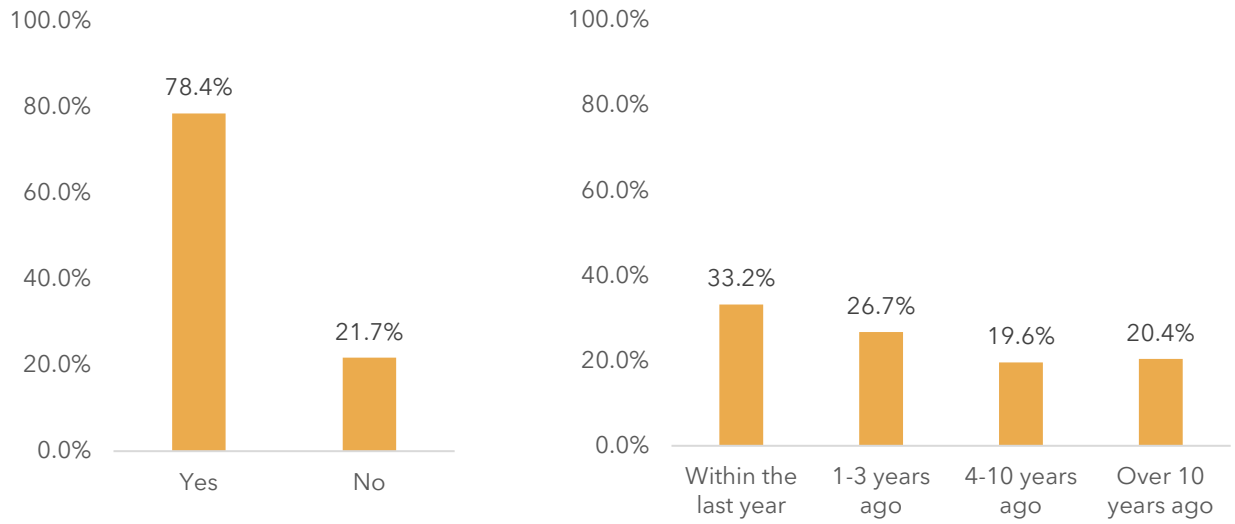

Figure 3: Percent of respondents who had fished before in Oklahoma (n= 485, left panel) and for those who had, how often it had been since they had gone fishing (n=367, right panel).

The rate at which individuals had fished before did not differ by gender (χ^2=2.06, df=2, p=0.36) or by age (χ2=1.25, df=2, p=0.53). If they selected that they did fish in Oklahoma before we asked how long it had been since they last went fishing, this did differ significantly by gender (χ^2=26.86, df=6, p<0.05), with males being two times more likely to say within the last year and women two times more likely to say over 10 years ago. Age was not significantly different in their past fishing.

Interest in Fishing and Past Barriers

For the remainder of the general population analysis, only those under a recruitment lens will be assessed (n = 191). The first question we asked respondents after determining their status as anglers was whether they would be interested in fishing again. The majority would be interested (53.4%), but results did vary significantly by

whether they had never fished before or if they had fished but it had been over 10 years ago (χ^2=25.15, df=1, p<0.05; Fig. 4).

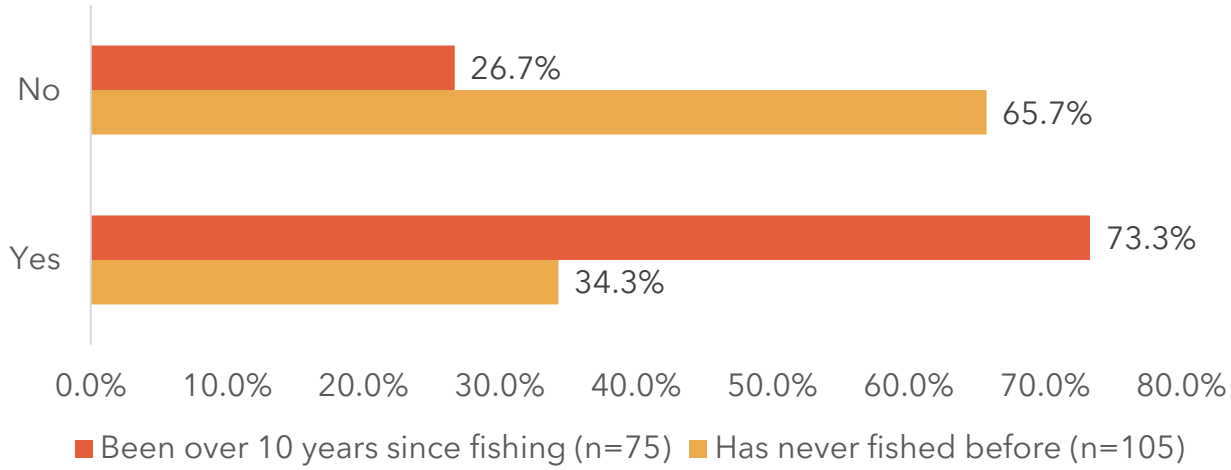

Figure 4: Respondents selecting they would or would not be interested in fishing in the future by if they had fished in the past.

Those who selected that they were not interested in fishing in the future were asked no further questions. Demographic information for these individuals was pulled from the purchased sample and checked against voter records. For those individuals who were interested in fishing in the future but had not fished in the past or had not fished in more than 10 years, we ended up with 102 individuals. We first asked these individuals why they would be interested in fishing in the future by converting the 'check all that apply' responses to a binomial variable and averaging the data. The top selected reasons were “Spending time with friends and family”, “Something to do outside”, “Seems like a fun thing to do”, and “would like to catch fish to eat”. The remaining variables are depicted in Figure 5.

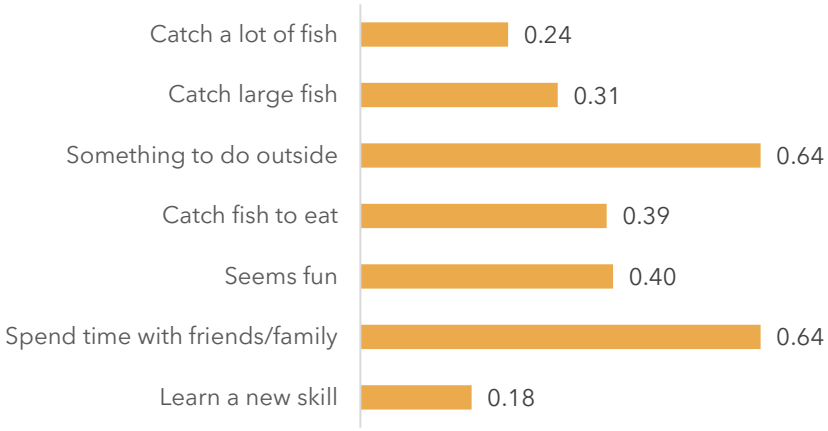

Figure 5: Average of binomial response to why non-anglers would be interested in fishing in the future (n=102)

We also asked anglers what has kept them from going fishing in the past, despite their interest. Similarly, we converted this 'check all that apply' question into numeric data and calculated the average selection rate for each barrier to fishing for this constituency. The top reason selected was that they didn't know where to go fishing. The second most preferred option was not having any fishing equipment, followed by 'no time' and 'not knowing anyone', which were selected as the third and fourth options, respectively (Figure 6).

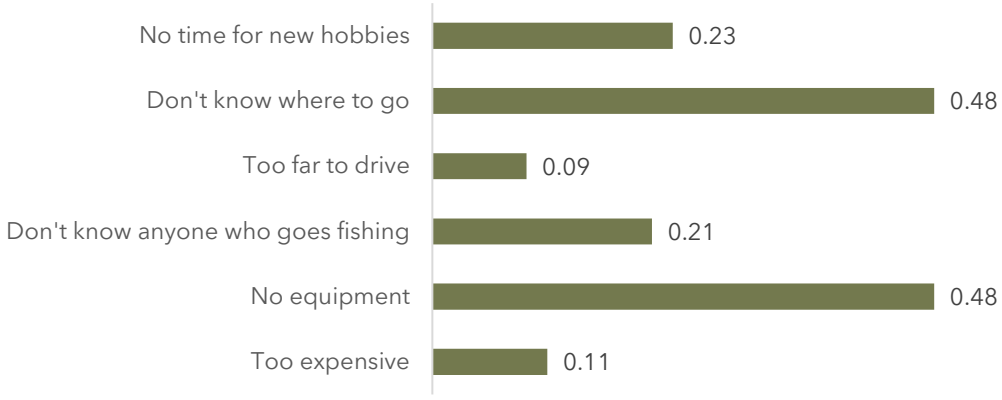

Figure 6: Average of binomial response to why non-anglers interested in fishing have not gone fishing in the past

Desired Learning Experience

To drill into this a little further, we asked individuals if they know anyone who goes fishing, and 69% said they do. Related to this, we asked who they would like to learn from. Overall, the majority did not prefer who they learn from (51.5%), between people they know or the Department. Those who did have a preference selected someone they know (24.8%) at a slightly higher rate (23.8%). Among those who said they don't know anyone who fishes, 30% said they would like to learn from the Department. This varied by gender, with women being significantly more likely to select learning from someone they know and men being less likely to have a preference (χ^2=12.27, df=4, p<0.05; Fig. 7).

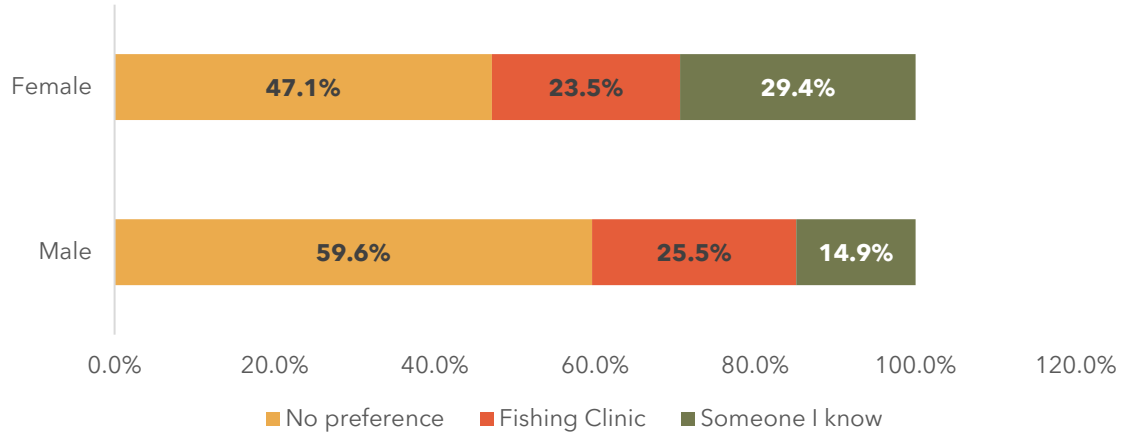

Figure 7: Response to who individuals would want to learn from separated by gender

Awareness of CTH Ponds and Experience Expectations

We then asked non-anglers if they had heard of CTH areas. Ninety-five percent of these individuals (who are interested in fishing!) had not heard of these areas, even though they live within 15 minutes of a pond (Figure 8). We then explained what CTH ponds are and asked if knowing about these ponds would increase their likelihood of trying out fishing. Eighty-five percent of individuals stated they would be more likely.

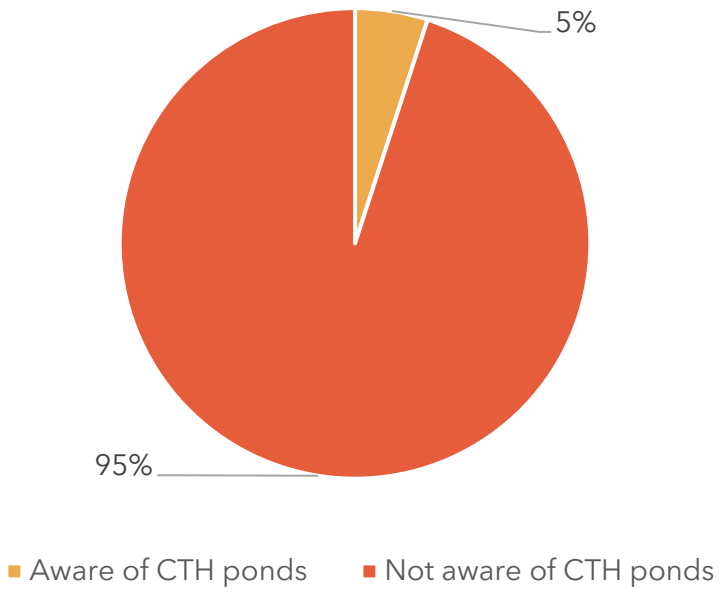

Figure 8: Response of those who have never fished or not fished in over 10 years, who are interested in fishing and their awareness of CTH

Finally, we wanted to know how to effectively communicate our CTH areas to new anglers who are interested in trying fishing. First, we asked what they would expect to find at a pond near their home that would help them fish with a feeling of safety selected most often (Figure 9).

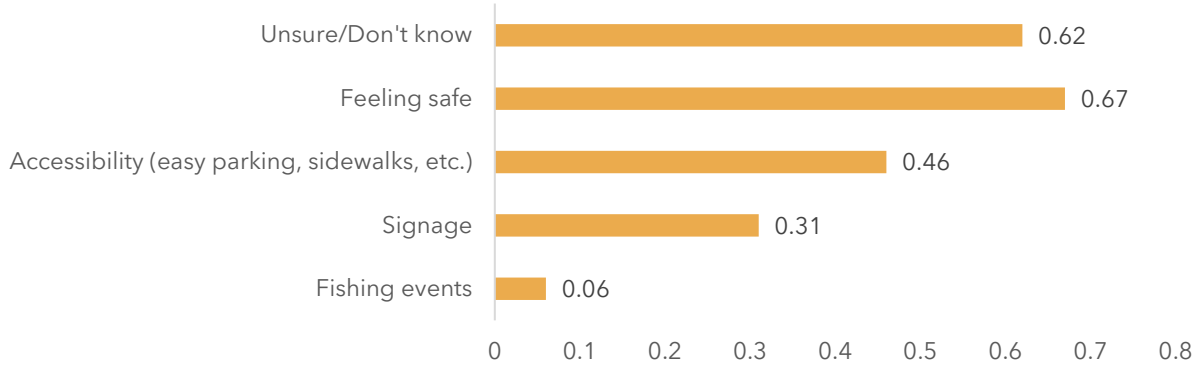

Figure 9: Average of binomial response to what new anglers would new anglers would expect to have at an area they were visiting for the first time

We also asked new anglers if they currently visit city parks, which is typically where Close to Home ponds are maintained. Sixty-one percent said they visit these parks. When asked what they would like to know about these parks before visiting, the most frequently selected answer was the area's safety, followed by parking (Figure 10).

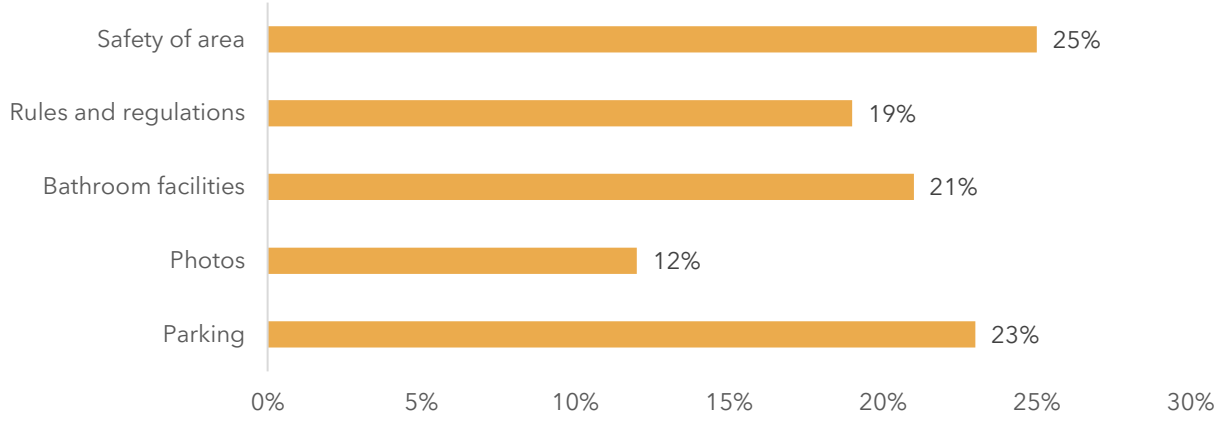

Figure 10: Response to what information individuals would want to know about an area before visiting, separated by gender

Current Perspectives and Experiences in the Outdoors

Finally, to help us craft impactful messages, we asked about their feelings toward the outdoors and the activities they currently participate in. Many of these individuals said they would be interested in fishing in the future to be outside. We found that the majority of these individuals also feel that being outdoors is beneficial for their mental health (Figure 11).

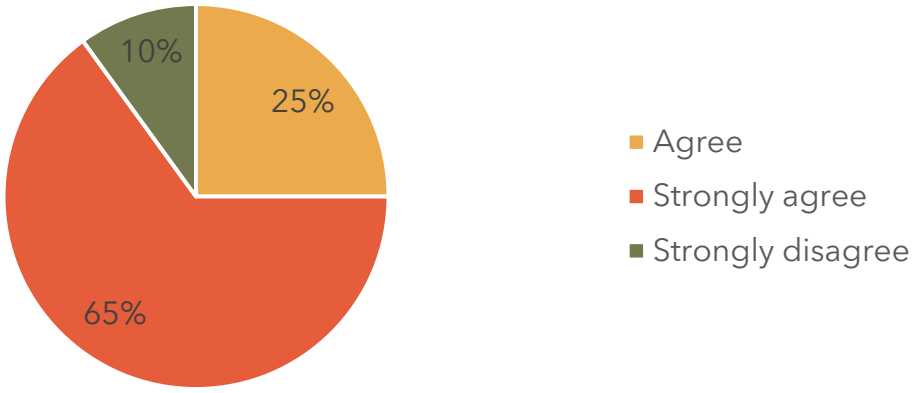

Figure 11: Breakdown of respondents to how if they feel that being outdoors is good for their mental health

It may also be helpful to connect a new activity, such as fishing, to a current activity that these individuals participate in. This is also why it may be easier to recruit individuals who already visit city parks. We asked what outdoor activities these individuals currently participate in, and the most selected were gardening, running/walking, and wildlife watching. Hunting was selected by the fewest number of respondents, particularly among those who have never fished before (Figure 12).

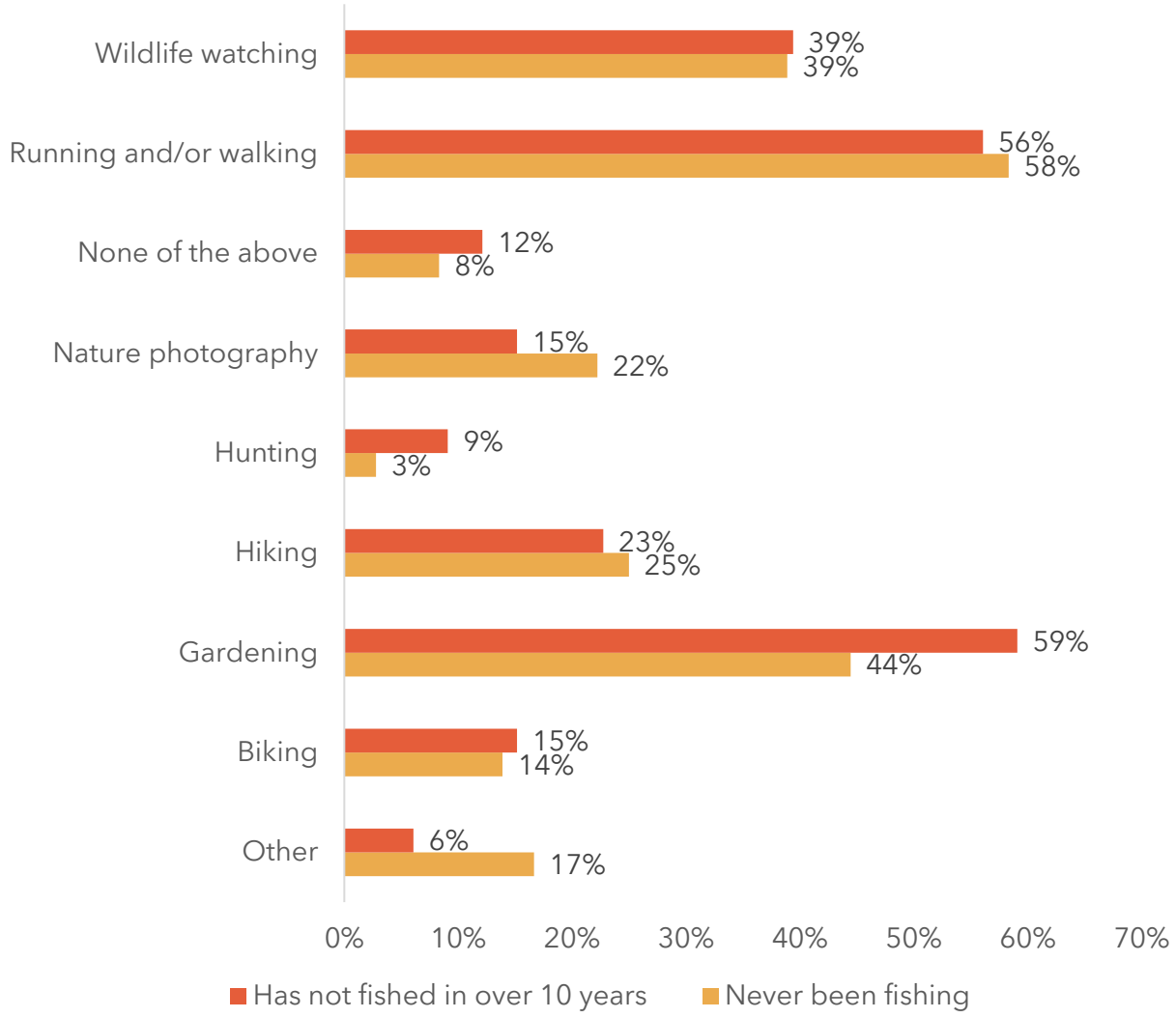

Figure 12: Other outdoor activities that non anglers participate in separated by if they have fished before

Lapsed Anglers

After we applied weights, the sample consisted of 63.5% males and 36.5% females. Other demographic variables, after weighting, are presented in Table 4.

Table 4: Weighted demographic data for lapsed responses

Demographic Variable	Category	Weighted Lapsed Anglers
Age	18-24	13.7%
	25-34	24.2%
	35-44	23.6%
	45-54	17.4%
	55-64	13.7%
	65-74	6.1%
	75 or older	1.3%
Income Level	Under $49,999	28.0%
	$50,000-$99,999	35.9%
	$100,000-$150,000	14.4%
	Over $150,000	8.8%
	Prefer not to say	12.9%
Race or Ethnicity	Another race or ethnicity	0.4%
	Asian	1.0%
	Black or African American	5.8%
	Hispanic or Latino	3.8%
	Multiracial or Multiethnic	1.9%
	Native American or Alaska Native	3.9%
	Middle Eastern or North African	0.0%
	Native Hawaiian or other Pacific Islander	1.6%
	Prefer not to say	5.5%
	White	76.1%

Barriers to fishing in Oklahoma

We first asked lapsed anglers what the main reason was for their not fishing in the last three years (Figure 13). As with many other surveys that the Department conducts, the most often selected answer was "other priorities" (48.4% of respondents). Of the 9.7% who selected "other," responses included not having an opportunity, no interest, or no ability to reach fishing areas.

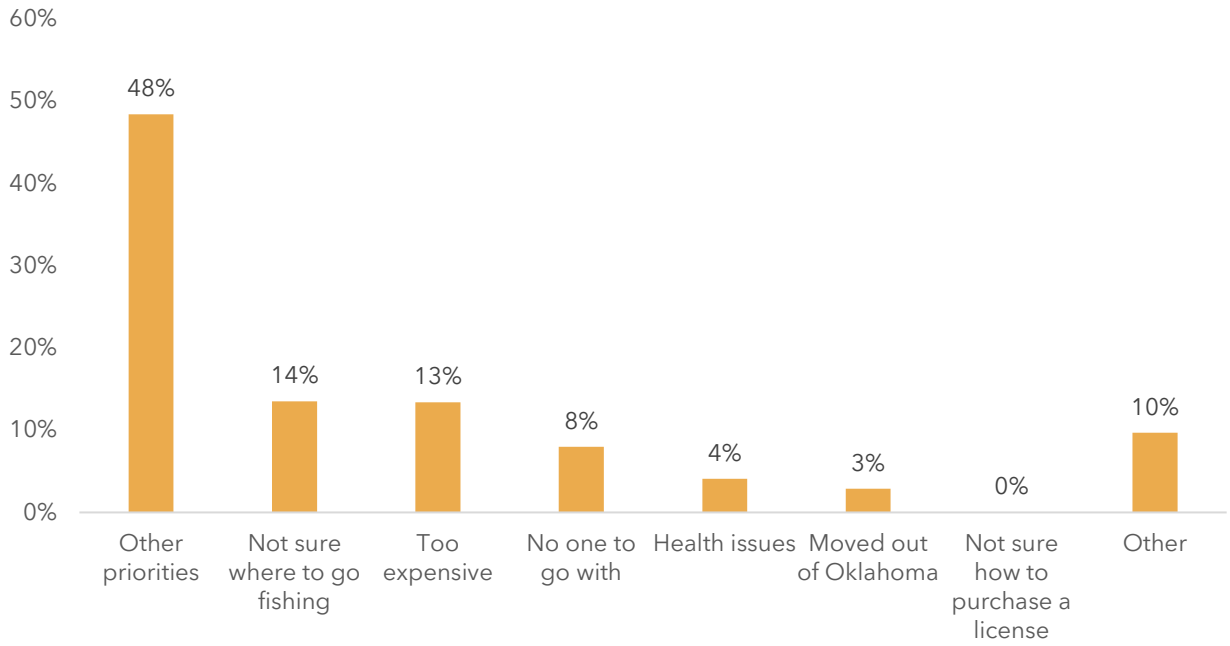

Figure 13: Forced choice question of the main reason that has kept lapsed anglers from fishing in the last three years (Weighted n=223)

We examined these responses by demographic variables and found no statistically significant differences using a chi-squared test. We lumped demographics for this analysis and all future demographic analyses into broader classes to create larger subgroups. The subgroups are male and female, income less than $75,000 and income more than $75,000, white and non-white. Age was collapsed into three groups: 18-34, 35-54, and 55+ years. When analyzing by demographic variables, we did not weight the data.

Interest in fishing in the future, and what would be most important to them

Although these individuals are lapsed, we wanted to gauge their interest in fishing again. The majority are "very interested" (56.1%), followed by those who are "interested" (26.2%). Only 1.9% are either "not at all interested" or "not so interested" (weighted n=224).

To better understand these individuals and their recreational preferences, we asked when they typically fish in Oklahoma, what is important to them, using a 'check all that apply' question. To apply weighting factors, we converted this data to a numerical value: "1" denoting that a respondent selected that reason, and "0" indicating that it was not selected. Using this numerical data, we calculated a weighted mean for each reason (Figure 14).

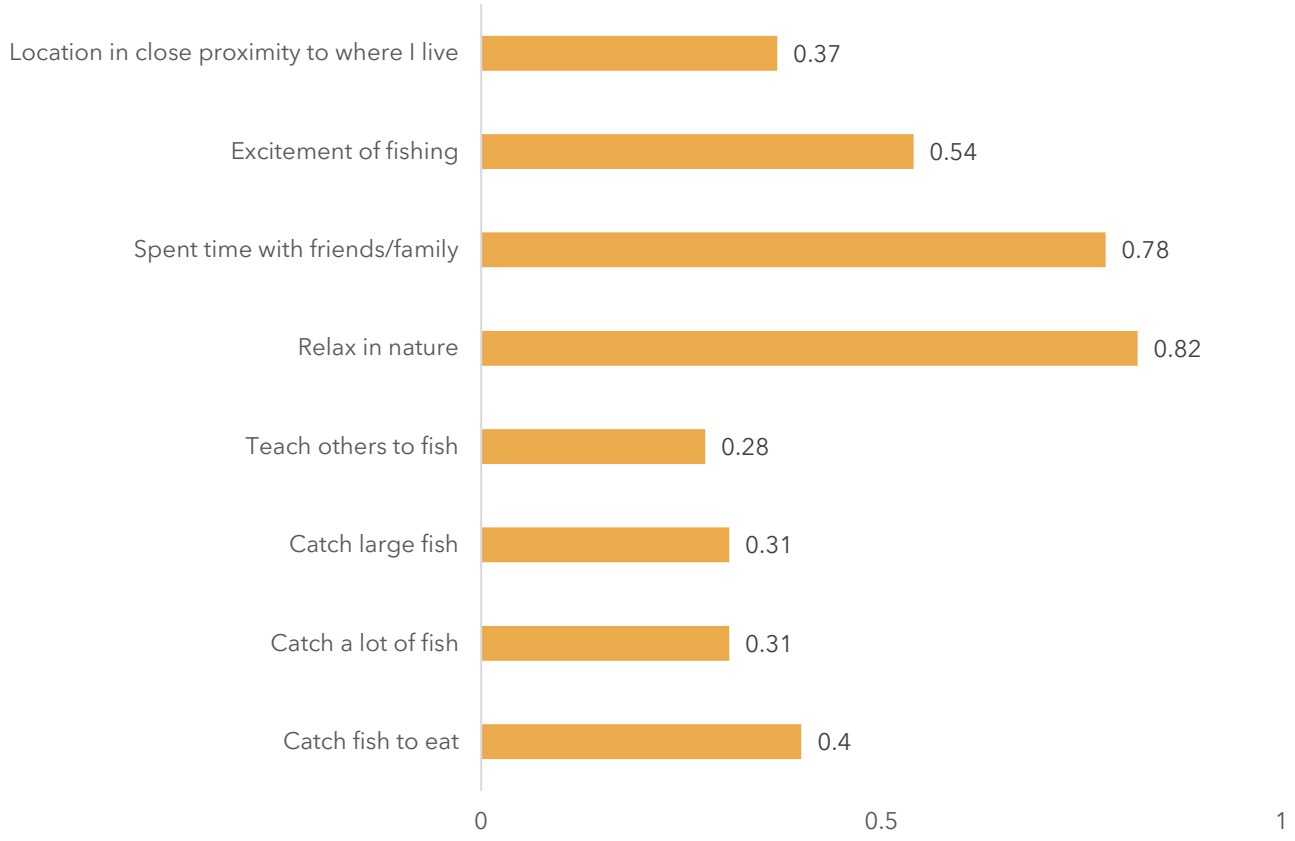

Figure 14: Weighted means of the importance to individuals of different fishing-related factors.

We used logistic regression to determine the influence, if any, of different demographic variables and their levels on the likelihood that a respondent would

select a reason as important or not. There were no statistically significant differences in the selection of important factors when comparing race and income levels. When comparing the genders, men were 91% more likely to select the importance of catching large fish (OR: 1.92; CI: 1.05-3.59) and 151% more likely to choose the importance of teaching others to fish than women (OR: 2.51; CI: 1.35-4.85). When comparing across three age classes, selecting relaxation as an important factor was 68% less likely among individuals aged 35-54 than among those aged 18-34 (OR: 0.31; CI: 0.09-0.88). Individuals 55 and older did not select this at a rate different from that of 18–34-year-olds. Individuals 55 and older were 67% less likely to rate family as important than those 18-34 (OR: 0.33; CI: 0.12-0.83).

Previous interaction with CTH Fishing ponds and the influence they may have on fishing activity

We then asked lapsed anglers if they had heard of the CTH fishing program. Eighty-two percent of respondents selected "No" (Figure 15).

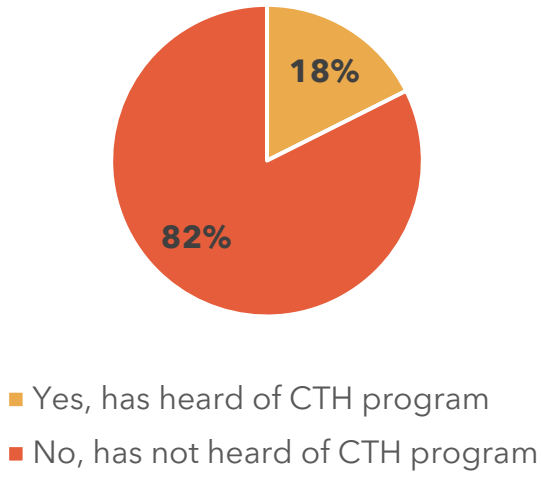

Figure 15: Response to the question of lapsed anglers if they had heard of the CTH fishing program previously (weighted n=222).

For the 17.6% of respondents who reported having previously heard of the CTH fishing program, we asked whether they had fished a CTH fishing area. Sixty-three percent said they had previously used a CTH fishing area, while 17.6% said they were

unsure or could not remember. If they reported having fished a pond, we asked them about their satisfaction with their fishing experience at the CTH ponds (Figure 16).

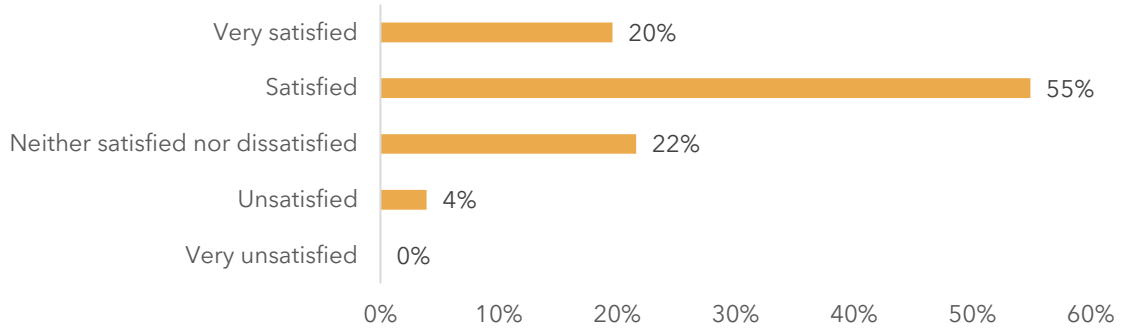

Figure 16: Satisfaction level of CTH ponds from lapsed anglers who had previously used a CTH pond (weighted n=25).

We followed up on this question by offering respondents the opportunity to explain why they rated their satisfaction the way they did. Not many people took this opportunity (n=10). Still, many of these individuals had issues with their fishing experience: there wasn't enough fish stocked to catch many, or they wished there was more opportunity to catch bass.

For those who had not heard of the CTH fishing program, we explained what it is and asked whether their likelihood of fishing again would increase if they knew these ponds existed. Only 8.2% of respondents stated it would not impact their likelihood, while 82.1% selected they would be more likely to fish again, and 9.6% were unsure (Figure 17). We asked those who said it would not impact their likelihood to explain their response. Many respondents said they only fish in lakes, while others stated they were not fishing at all. Others mentioned that the license is too expensive or that they live on a lake and don't need these ponds.

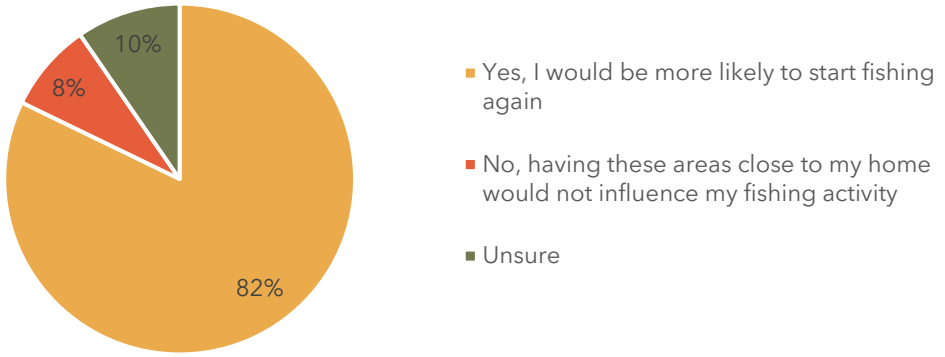

Figure 17: Reported likelihood of lapsed anglers to re-start fishing after becoming aware of the Department's CTH fishing ponds (weighted n=221).

Preferences for experience and amenities at CTH ponds

Our next question brought all respondents together to select the species they would prefer to see stocked in these ponds. Overall, the most preferred species was bass (37.3%), followed by catfish (27.8%). Twenty-one percent of respondents stated that they had no preference, 8.0% wrote in an "other" option, and 6.1% selected sunfish. Of those who wrote in a different species, 79% of the write-in responses were crappie, while 21% were trout. The only demographic variable that showed a significant difference between levels was race (χ^2=9.93, df=4, p<0.05). Non-white individuals had a higher preference for catfish, while white anglers had a higher preference for bass (Figure 18).

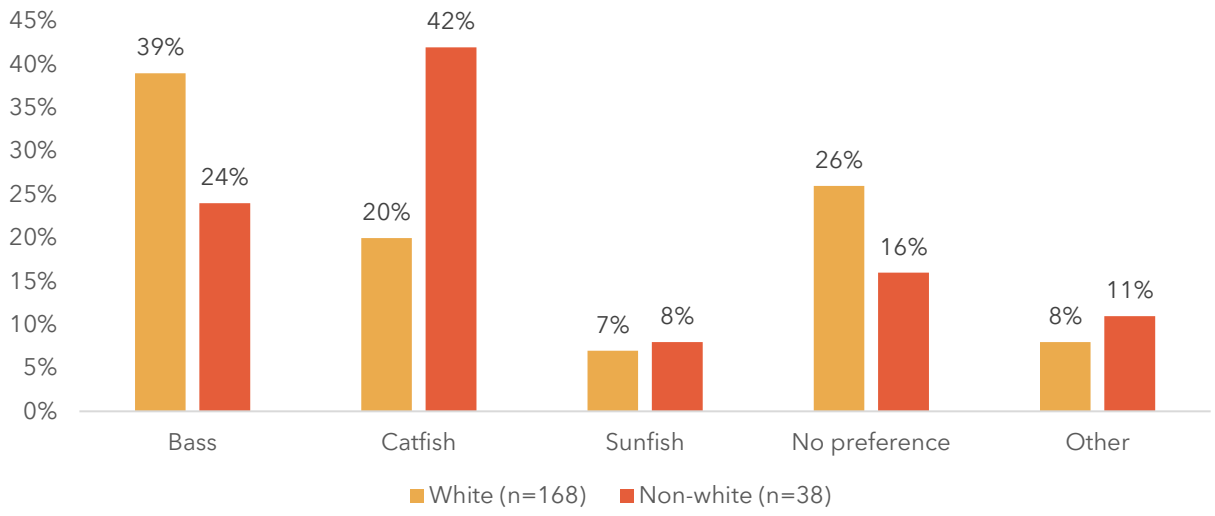

Figure 18: Species preference separated by response to demographic variable of race- categories collapsed into white and non-white to create larger subgroups for stronger analysis

We also wanted to know about infrastructure preferences. We asked respondents to indicate how much of a priority bank fishing, safety, and dock access are at CTH ponds. Safety ranked higher in prioritization than bank fishing and dock access (Figure 19).

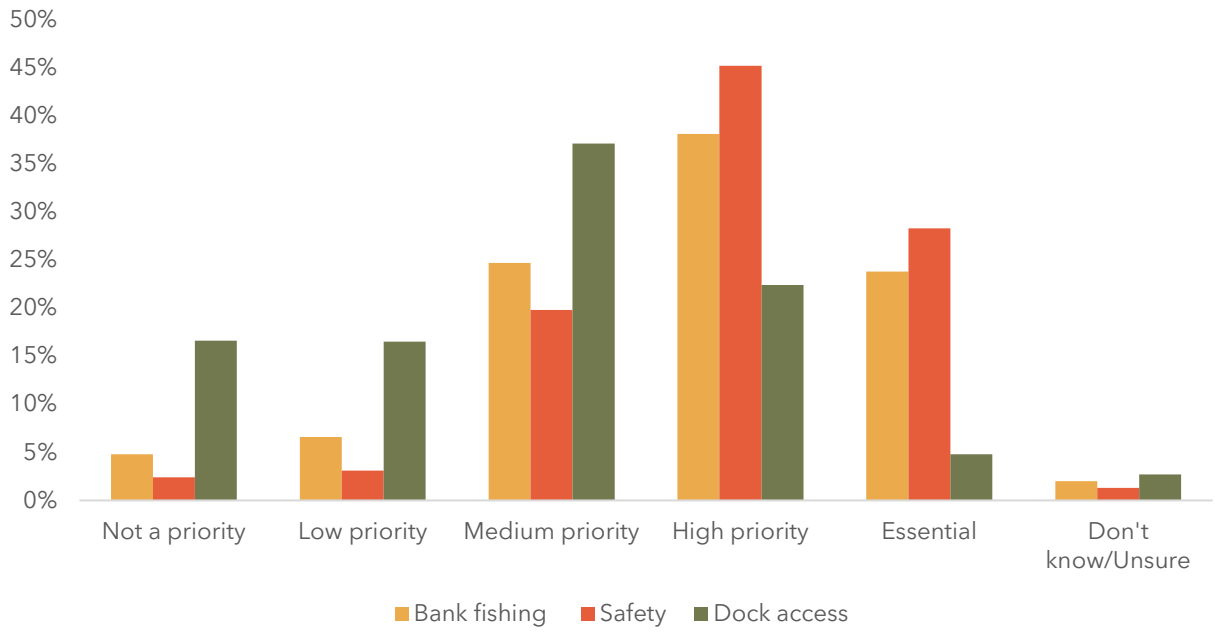

Figure 19: Level of priority for proposed elements of CTH ponds by lapsed anglers (weighted n=223 across categories)

We also examined differences in priority levels among demographic groups for various elements of the area at CTH ponds. The only demographic that changed across all three proposed elements was a significant difference in the priority level of women and feeling safe. Forty percent of women stated this was essential at CTH ponds, while only 19% of men stated this was essential.

Importance of various fishing characteristics at CTH ponds

As a follow-up to fishing in general and after explaining what CTH ponds are to those who are unfamiliar, we wanted to see if there would be different reasons that people would use CTH ponds, so we asked again if they were fishing at a CTH pond, what they would think is important, and converted this data to numerical binomial data. The top three most important aspects of fishing at CTH ponds were "relax in nature", "spend time with friends and family", and "excitement of fishing" (Fig. 20).

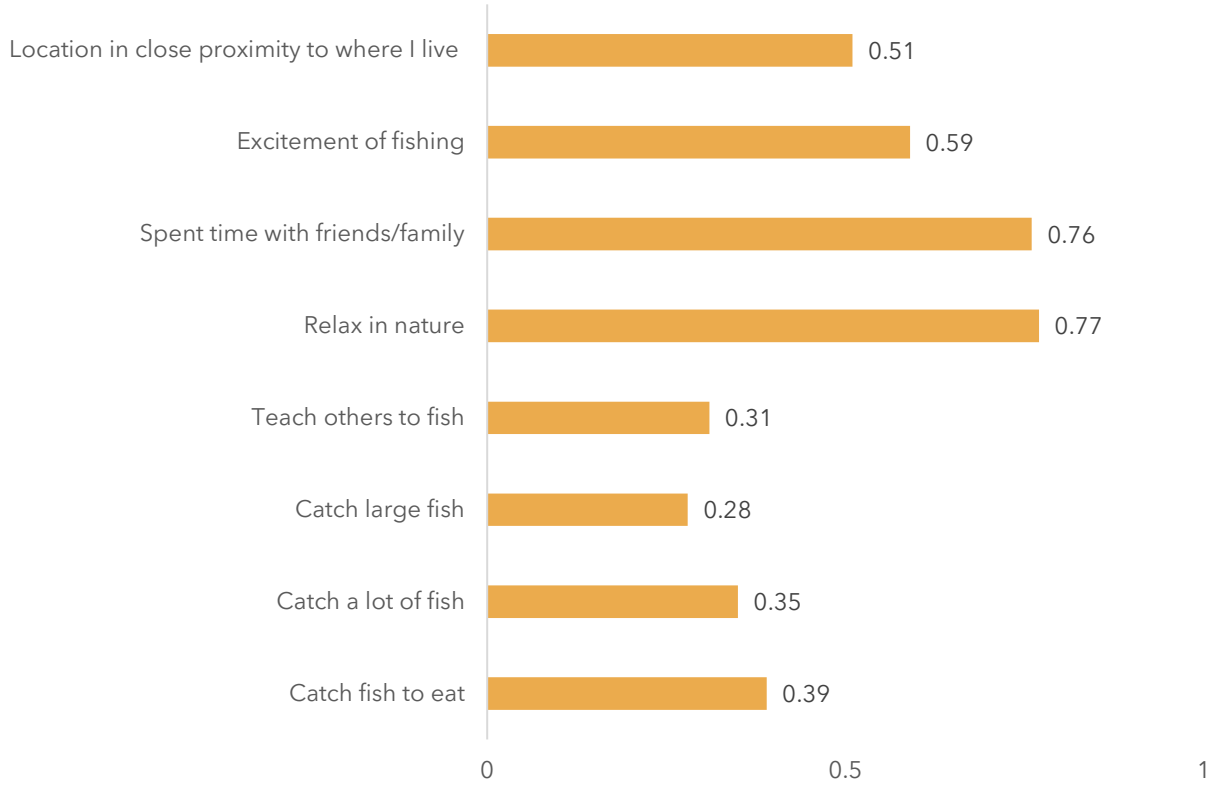

Figure 20: Comparison of weighted means to the question of importance of various factors related to fishing between generally fishing in Oklahoma and fishing a CTH pond by lapsed anglers

We used logistic regression to compare differences across demographics for important CTH fishing factors and found many factors that were significantly different. Male respondents were 91% more likely to select the importance of catching large fish (OR: 1.91; CI: 1.03-3.61), 101% more likely to choose the importance of teaching others to fish (OR: 2.00; CI: 1.12-3.68), and 72% more likely to select the importance of having an exciting time compared to women (OR: 1.72; CI: 1.01-2.96). Those who identified as white were 52% less likely to select the importance of catching fish to eat (OR: 0.48; CI: 0.23-0.97). Middle-aged anglers (35-54) were 61% less likely (OR: 0.39; CI: 0.18-0.81), and anglers 55 and over were 64% less likely (OR: 0.37; CI: 0.16-0.81) to select an exciting time fishing compared to anglers 18-34. Finally, when comparing income levels, those making less than $75,000 were 152% more likely to choose the importance of relaxing time (OR: 2.53; CI: 1.29-5.13), and 93% more likely to select an exciting time fishing compared to those who make $75,000 or more (OR: 1.93; CI: 1.09-3.44).

To compare the difference between expectations that people have for fishing generally in Oklahoma's lakes, rivers, ponds, etc., and how they would hope to experience CTH ponds, we compared the data using a McNemar's Test for paired nominal data. The only response option that was different between the two for lapsed anglers was "location close to where I live" (McNemar's χ^2= 12.68, df=1, $p<0.05$). All other aspects of fishing are consistently important across fishing locations for lapsed anglers.

Recruiting people back into fishing

To entice individuals to visit our ponds, we wanted to know whether they would appreciate clinics being held there. Respondents were mixed on their interest in this. The plurality (47.0%) said they would be "somewhat interested" in educational clinics. Eighteen percent selected "very interested" and 17.2% selected "not so interested" while 12.8% selected "not at all interested" and only 5.4% said "extremely interested". There were no significant differences by demographics.

For individuals who selected 'extremely', 'very', or 'somewhat' as their level of interest in clinics, we followed up by asking them about the topics they would like to learn more about. This was a 'check all that apply' question, so we converted the data into a binary variable and calculated a weighted mean for each topic (Fig. 21). Where to go, bait and tackle options, and learning new techniques were similarly popular, with how to clean and cook a fish falling lower on the scale of interest across the

respondent group. Logistic regressions across demographic groups showed no significant demographic effects on their choice.

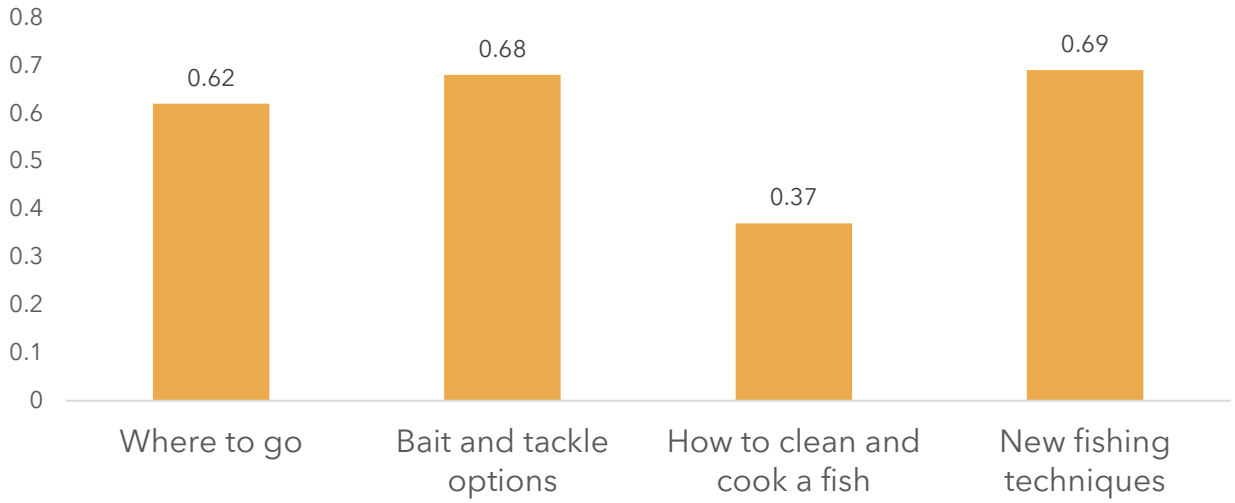

Figure 21: Weighted mean preference for topics of fishing clinics at CTH ponds by lapsed anglers

Finally, we asked individuals what, if anything, would encourage them to fish more often or start fishing again. Again, this data provided a weighted mean from numerical values (Table 5).

Table 5: Lapsed angler response to what is keeping them from fishing and what would make them fish more.

What would make you fish more?	
If I had more time	0.56
Invitation from a friend or family member	0.34
If places were more convenient	0.30
Lower prices	0.32
If I felt safe at the locations, I fished	0.24
Better amenities at my fishing spots	0.22
A child asked to be taken fishing	0.30

We performed logistic regressions on these variables to determine the influence of demographics on their responses. Males were 127% more likely to select "if I had more time" (OR: 2.28; CI: 1.33-3.94) and 77% less likely to choose "If I felt safe at the locations I fished" (OR: 0.22; CI: 0.11-0.42) compared to women. Middle-aged (35-54) were 54% less likely to select an invitation from a friend or family member than anglers 18-34 (OR: 0.46; CI: 0.22-0.93). Also, anglers 35-54 were 60% less likely (OR: 0.40; CI: 0.19-0.82), and anglers 55 and over were 76% less likely (OR: 0.23; CI: 0.09-0.53) to choose lower prices compared to anglers 18-34. Income had an impact in that those that make less than $75,000 were 54% less likely (OR: 0.46; CI: 0.24-0.86) to select "if a child asked to be taken fishing" and 158% more likely (OR: 2.58; CI: 1.35-5.11) to select "lower prices" than those that earn $75,000 or more.

Active Anglers

Once the data were weighted with the calculated weighting factors, the sample consisted of 75.5% males and 24.5% females. Other demographic variables, post-weighting, can be seen in Table 6.

Table 6: Weighted demographic data for active responses

Demographic Variable	Category	Weighted Active Anglers
Age	18-24	8.9%
	25-34	13.6%
	35-44	17.0%
	45-54	14.8%
	55-64	13.5%
	65-74	17.0%
	75 or older	15.1%
Income Level	Under $49,999	26.2%
	$50,000-$99,999	33.6%
	$100,000-$150,000	13.7%
	Over $150,000	8.5%
	Prefer not to say	0.0%
Race or Ethnicity	Another race or ethnicity	0.6%
	Asian	2.2%
	Black or African American	3.0%
	Hispanic or Latino	3.1%
	Multiracial or Multiethnic	1.2%
	Native American or Alaska Native	7.1%
	Middle Eastern or North African	0.0%
	Native Hawaiian or other Pacific Islander	0.0%
	Prefer not to say	5.7%
	White	77.0%

Most important aspects of fishing to active anglers and Barriers to Fishing

We first asked active anglers the same question we had asked lapsed anglers: what reasons are important to them when fishing in Oklahoma, generally. Looking at the weighted means for this data, among lapsed anglers, the most often selected response was "relax in nature". The remaining means are shown in Figure 22.

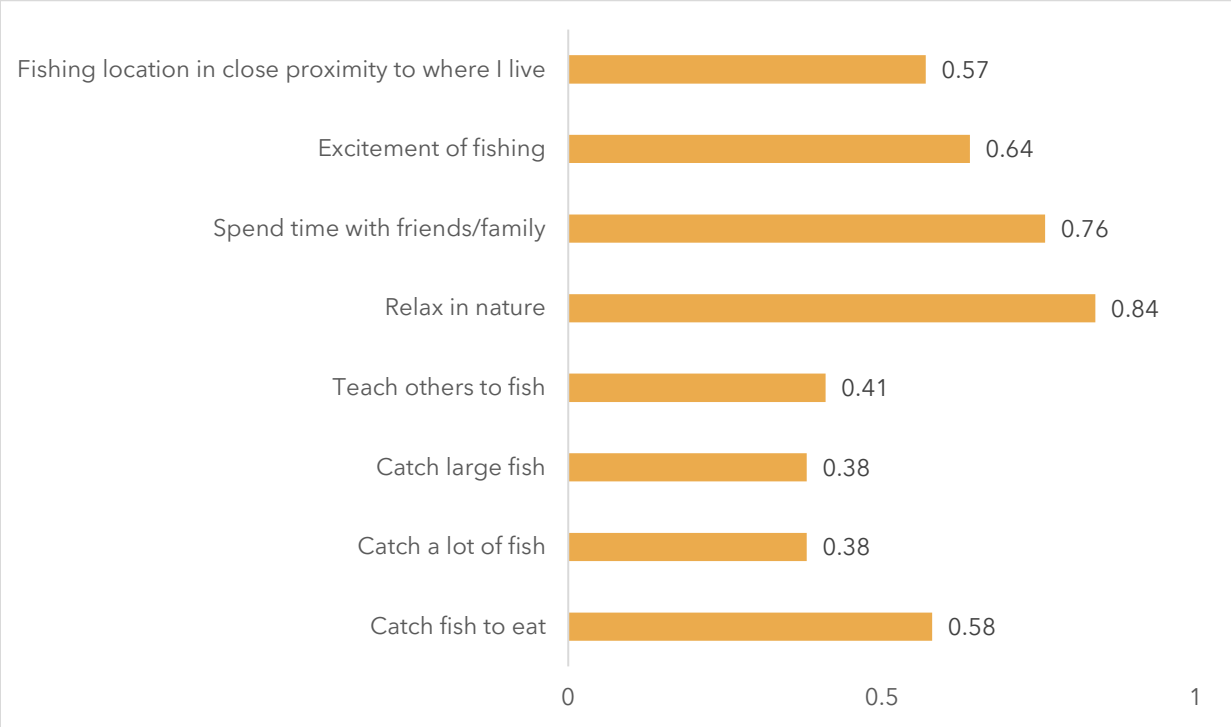

Figure 22: Weighted means of the importance to active anglers of different aspects of fishing in Oklahoma generally.

Applying logistic regression with demographic variables as predictors, we found significant differences across some levels of importance. Across race, gender, income levels, and age class, race was the only variable that had no significant differences in any measure of important factors. In comparing by gender, men were 64% more likely than women to select the importance of teaching others to fish (OR: 1.64; CI: 1.10-2048). When looking at income level, those who make $75,000 or less were 69% more likely to select the importance of relaxing in nature (OR: 1.69; CI: 1.06-2.74) and 45% more likely to choose a location close to where they live (OR: 1.45; CI: 1.02-2.04). Age had many differences. Those 55 and older were 64% less likely to select that they want to catch a lot of fish (OR: 0.37; CI: 0.23-0.60), 64% less likely to choose the importance of catching large fish (OR: 0.34; CI: 0.21-0.54), 61% less likely to

choose teaching others to fish (OR: 0.39; CI:0.24-0.62), 55% less likely to choose the importance of spending time with family and friends (OR: 0.45; CI:0.24-0.80) and 62% less likely to want an exciting time fishing (OR: 0.38; CI:0.21-0.64) compare to those 18-34. Individuals 35-54 were also 61% less likely to select an exciting fishing trip (OR: 0.39; CI: 0.22-0.68) compared to those 18-34.

We then asked active anglers if they fish as much as they would like to each year. The majority selected either "strongly disagree" (15.3%) or "disagree" (47.4%; Fig. 23). This varied by demographic characteristics. Gender and race were not significantly different; however, a chi-squared test revealed significant differences in income level and age. Those who earn $75,000 or less selected that they do fish as much as they would like at a higher rate than those who earn $75,000 or more. Also, anglers 18-34 selected they fish as much as they would like to at a higher rate than those 35-54 and 55 and over.

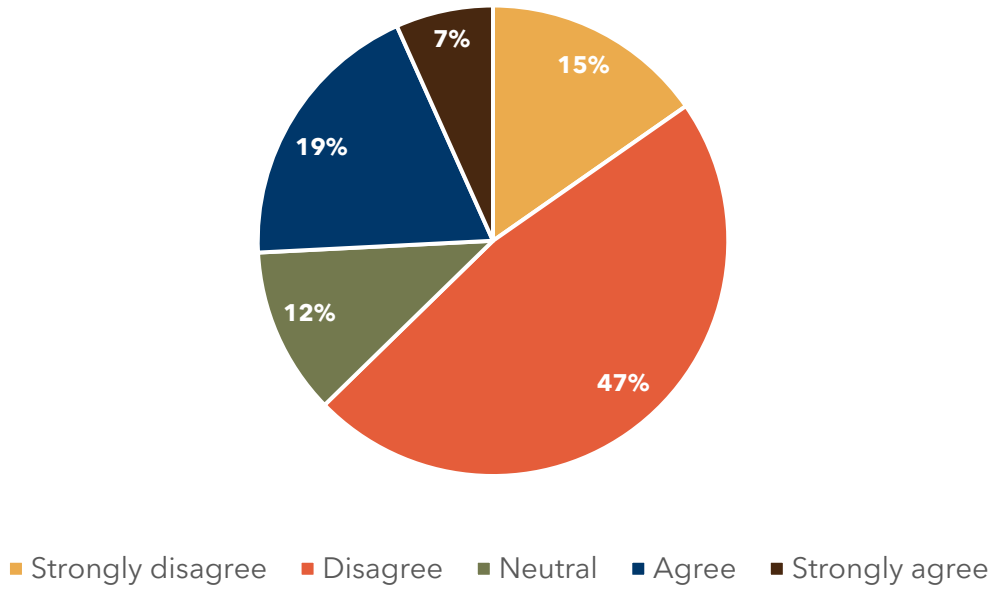

Figure 23: Level of agreement with the statement that they fish as much as they would like to each year by active anglers- differences in demographic responses denoted in the text (weighted n=650)

For those who selected strongly disagree, disagree, or were neutral, we asked what factors contribute to their inability to fish as much as they would like. The top three selected answers of all active anglers were “other priorities” (weighted mean 0.61),

"not enough time to drive to fishing spots (0.40), and "don't know where to go (0.34; Fig. 24).

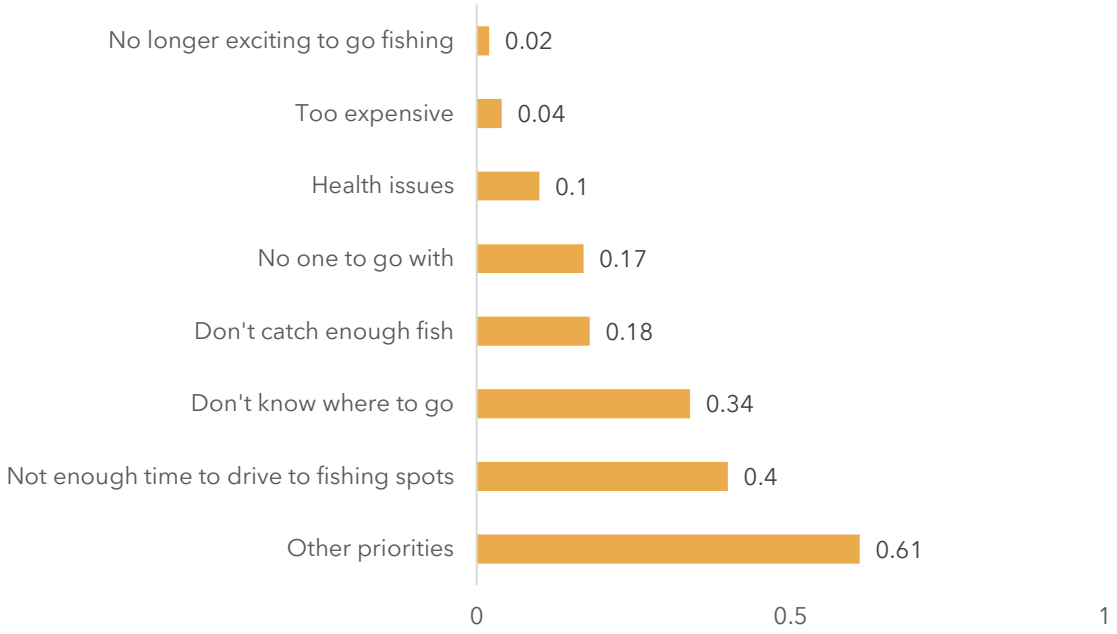

Figure 24: Active anglers selected reasons for not fishing as much as they would like to each year

We also compared these responses across demographic variables using a logistic regression model with demographics as predictors. There were differences across all demographic variables. When comparing across race, white anglers were 51% less likely than non-white anglers to select no one to go with (OR: 0.49; CI: 0.27-0.92). Comparing across income classes, those with incomes of less than $75,000 were 62% less likely to select other priorities compared to those with incomes of $75,000 or more (OR: 0.38; CI: 0.25-0.57), but 387% more likely to select health issues (OR: 4.87; CI: 2.18-12.39). Men were 46% less likely to choose that they don't know where to go (OR: 0.54; CI: 0.35-0.85) and 44% less likely to select catching a lot of fish compare to women (OR: 0.56; CI: 0.34-0.96) but 66% more likely to choose other priorities compared to women (OR: 1.66; CI: 1.06-2.58). Finally, age influenced selection across two categories. In comparison to anglers 18-34, anglers 35-54 were 90% less likely to select that it is no longer exciting to fish (OR: 0.10; CI: 0.00-0.76), and those 55 and older were 85% less likely to select this reason (OR: 0.15; CI: 0.02-0.93).

Anglers 55 and over were 354% more likely to choose health reasons than anglers 18-34 (OR: 4.54; CI: 1.32-28.51).

Previous interaction with CTH Fishing ponds and the influence they may have on fishing activity

We also asked those who do not fish as much as they would like whether knowing there are ponds within 20 minutes of their home would increase their likelihood of fishing as much as they would like in the coming years. Of these individuals, 76.8% stated they would be more likely to fish as much as they would like (Figure 25) – potentially minimizing their likelihood of lapsing. Eleven percent said it would not impact their likelihood, and 12.1% stated they were unsure how it would affect them. The response did vary by demographic in that those at a higher income level selected it would not influence their activity at a higher rate (χ^2= 7.62, df=2, p<0.05), and those aged 35-54 selected it would not influence at a higher rate (χ^2= 10.38, df=4, p<0.05).

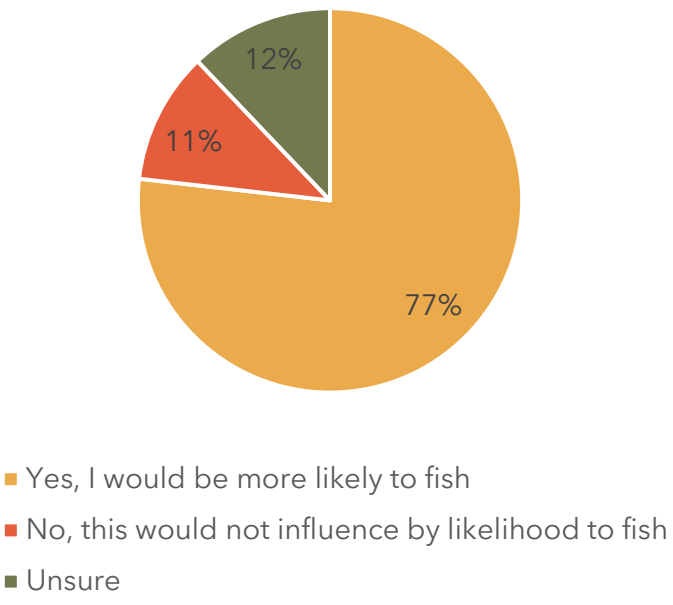

Figure 25: Active anglers' response to the question of knowing that CTH ponds exist and the influence that may have on their fishing activity (weighted n=482)

For those who state they ***do*** fish as much as they would like, we asked how familiar they are with CTH fishing areas. The plurality of responses selected they are "not at all familiar". Using a Fisher's exact test for count data, race was found to influence their responses to this question. Nonwhite anglers were more familiar with CTH ponds compared to white anglers ($p<0.05$; Fig. 26).

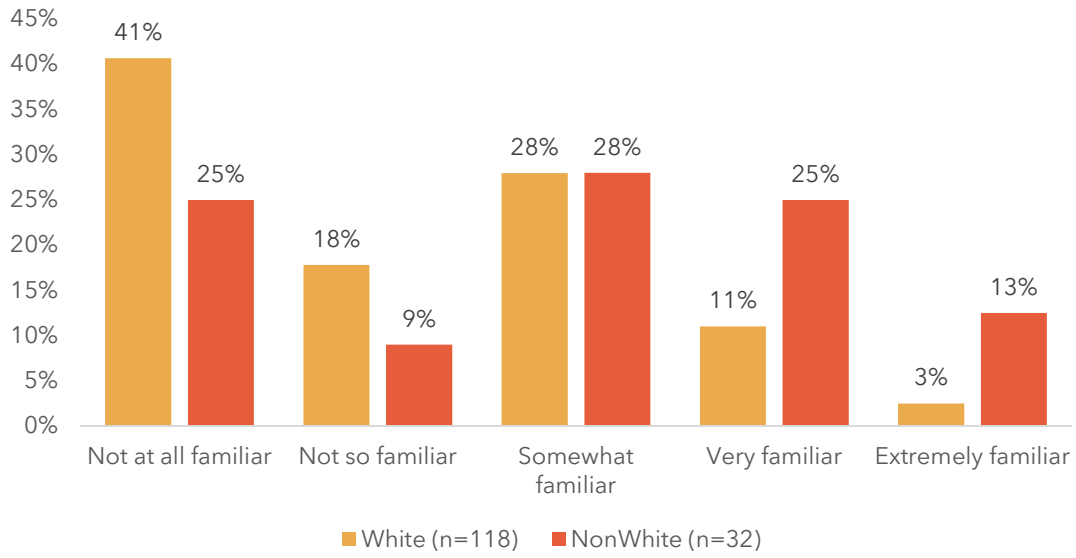

Figure 26: Level of familiarity with CTH ponds of those who said they fish as much as they would like to in Oklahoma in a year, separated by response to race/ethnicity

For those who selected 'not at all familiar', we asked a question that explained what the 'CTH' fishing program is and asked whether they would be likely to use it. 87% of respondents stated they would be interested in fishing at these areas. These responses did not differ significantly across demographic groups. Those who selected options other than "not at all familiar" were asked if they had ever used a CTH pond. Thirty-seven percent of respondents said they had used a CTH fishing area, 42% said no, and 21% were unsure if they had fished a CTH pond. Use of CTH ponds varied by gender and age ($p<0.05$; Figure 27). Men used CTH ponds at a higher rate than women, and anglers aged 18-34 used these ponds at a higher rate than older anglers.

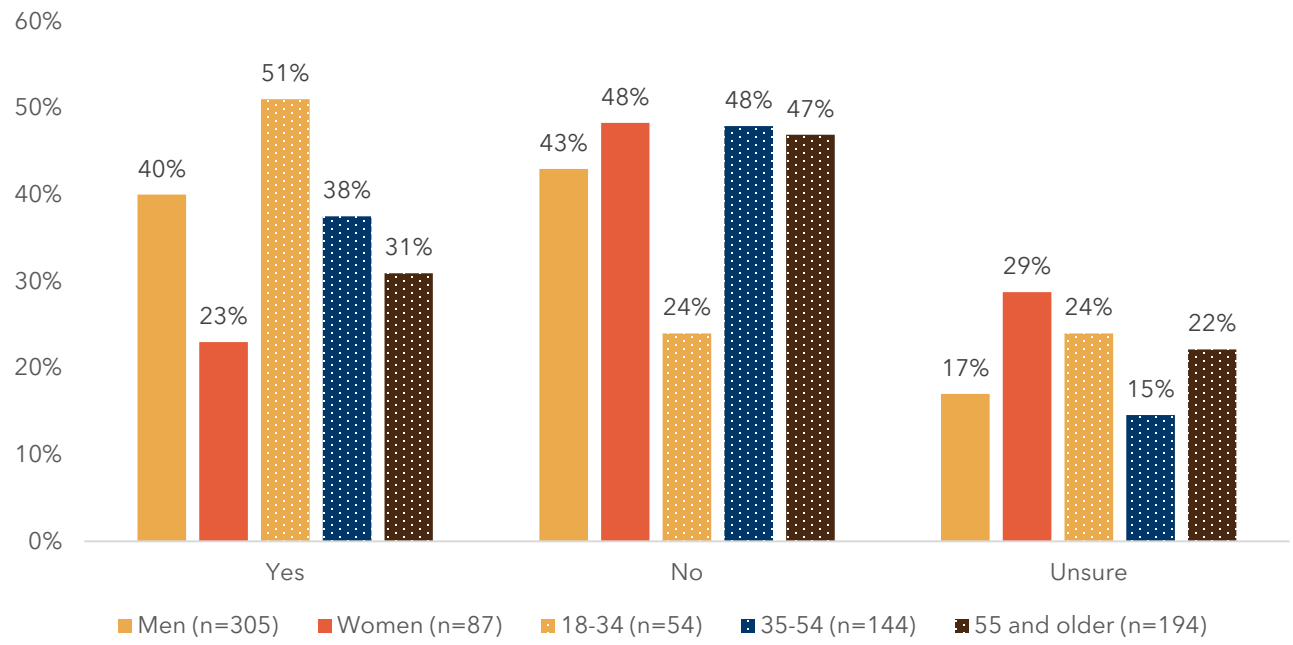

Figure 27: Responses by demographic variables. Comparing gender and age class and if they have used a CTH fishing pond in the past.

For those who had used a CTH fishing area, we asked them specifics about the ponds that they used. The responses to these questions are shown in Appendix B covering which pond, rating the cleanliness of the water and the surrounding area, if they felt welcome, and overall how satisfied they were with the pond.

Preferences for experience and amenities at CTH ponds

All respondents were brought back together to answer a question about which species they would most like to see stocked at CTH fishing ponds. Respondents would most like to target bass (42.9%), followed by catfish (21.8%) and crappie (9%). Another 2% wrote that they would prefer to target trout. There was no difference in these responses by demographic variables. If we only consider the three species currently stocked in these ponds, 59% would like to target bass, 30% would prefer catfish, and 12% would prefer sunfish.

In terms of characteristics of the area near the CTH ponds, we also asked active anglers to prioritize a feeling of safety, dock access, and the ability to fish from the

bank. Safety and bank fishing were selected as essential and high priority more often than dock access by active anglers generally (Figure 28).

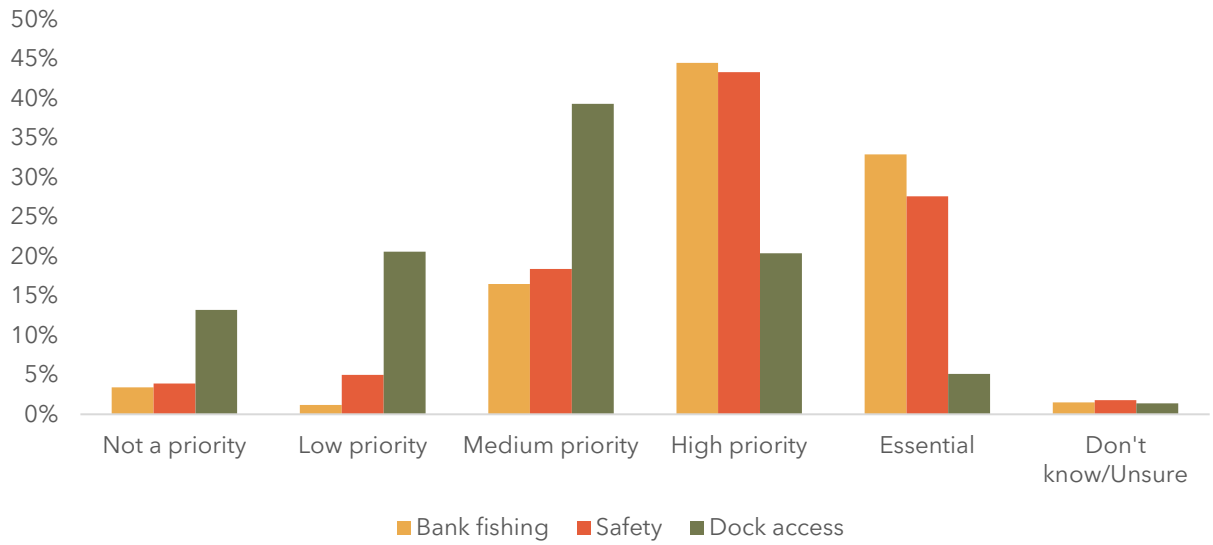

Figure 28: Level of priority for proposed elements of CTH ponds by active anglers (weighted n dock =615; weighted n bank =620; weighted n safety= 613)

Gender significantly differed in its prioritization of safety with women assigning a higher priority to this aspect than men (χ^2= 34.99, df=5, $p<0.05$). Dock access also differed significantly across gender, race, and age. Twenty-eight percent of women selected dock access as a high priority compared to 17% of men. Eleven percent of non-white anglers selected dock access as essential compared to only 3% of white anglers. Younger anglers and older anglers selected dock access as essential and high priority at a higher rate than anglers 35-54.

Importance of various fishing characteristics at CTH ponds

Again, we asked active anglers, as with lapsed anglers, to rate the important aspects of fishing at CTH ponds compared to fishing in Oklahoma more generally. The top three categories at CTH ponds were "relax in nature", "spend time with

friends/family", and a two-way tie of "excitement of fishing" and "location in close proximity to where I live" (Fig. 29).

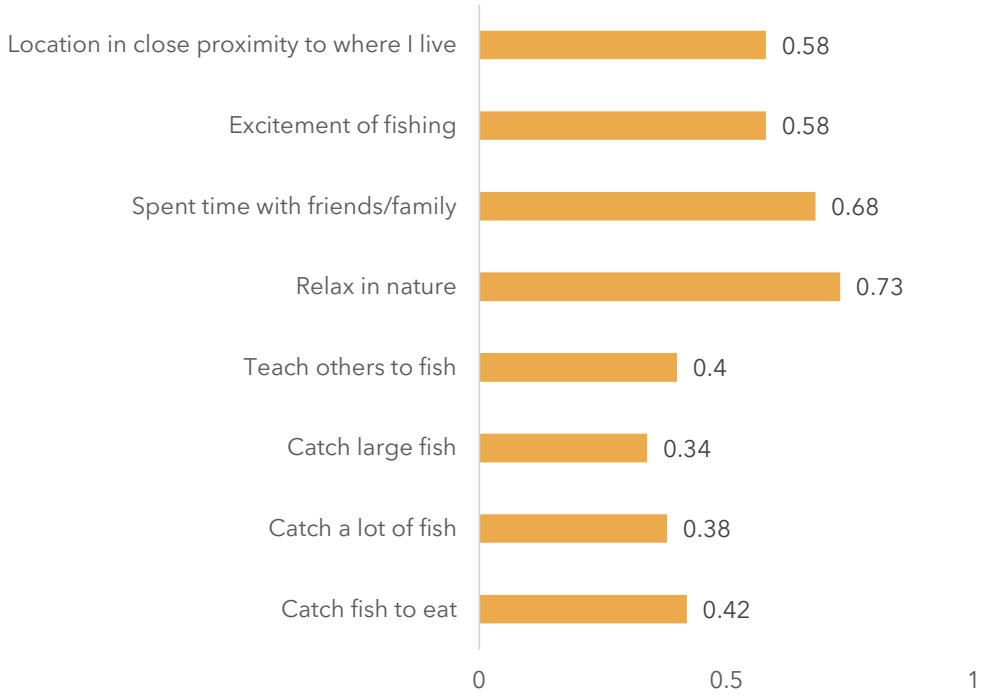

Figure 29: Comparison of weighted means between active anglers and the differences in importance of various factors in their experience at CTH ponds compared to fishing generally in Oklahoma

We used logistic regression models to compare differences across demographics for important CTH fishing factors and found many factors that were significantly different. Males were 40% less likely to select spending time with friends and family (OR: 0.60; CI: 0.38-0.91) and 37% less likely to select catching fish to eat compared to women (OR: 0.63; CI: 0.43-0.92). Those 55 and older were 64% less likely to select catching a lot of fish (OR: 0.37; CI: 0.23-0.60), 57% less likely to select catching large fish (OR: 0.41; CI: 0.25-0.66), 52% less likely to choose teaching other to fish (OR: 0.46; CI: 0.29-0.74), 56% less likely to choose an exciting time fishing (OR: 0.43; CI: 0.26-0.72), and 51% less likely to select spending time with friends and family (OR: 0.51; CI: 0.29-0.85) compared to anglers 18-34. Those individual who reported making less than $75,000 were more likely to choose catching fish to eat (at a rate of 65%; OR: 1.65; CI: 1.17-2.34), catching large fish (54%; OR: 1.54; CI: 1.07-2.22), relaxing in nature (87%; OR:1.87; CI:1.27-2.76), exciting time (49%; OR: 1.49; CI: 1.06-2.11), and location close to where they live (52%; OR: 1.52; CI:1.07-2.14) compare to anglers

who make $75,000 or more. Finally, white anglers were 43% less likely to select catching fish to eat (OR: 0.57; CI: 0.37-0.86) and 44% less likely to select catching large fish (OR: 0.56; CI: 0.37-0.85) as important at CTH ponds compared to non-white anglers.

As with lapsed anglers, we also looked at the difference between preferences of generally fishing in Oklahoma and how expectations may change at CTH ponds for active anglers. We used a McNemar's Test for paired nominal data and found several significant differences (Figure 30).

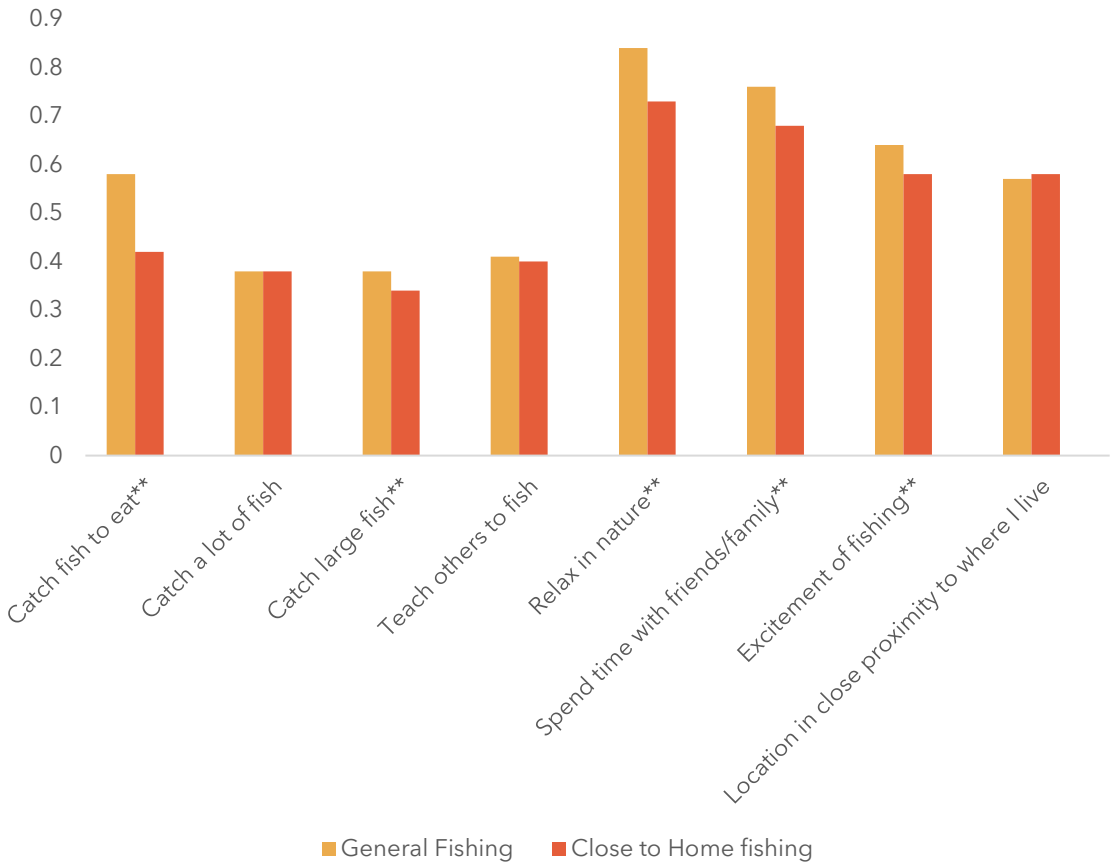

Figure 30: Comparison of active angler responses between what they feel is important when fishing generally in Oklahoma compared to fishing at CTH ponds in metro areas

CTH ponds as recruitment tools

We then asked active anglers about their feeling surrounding mentorship. We first wanted to know if they have friends or family who don't currently fish but may be interested in fishing in the future. Half of the respondents stated that they have friends or family who would be interested in fishing. Another 25% stated they are unsure, and the remaining 25% said no. This varied by race and income class. Sixty percent of non-white anglers stated they have family interested, while only 47% of white anglers selected that they would have family interested. Those who make $75,000 or less also selected that they have family interested at a higher rate, while selecting unsure at a higher rate than those who make $75,000 or more.

We also asked active anglers to rate their skill level as an angler. Sixty percent of respondents said they would rank themselves as intermediate, 26% stated they would rank themselves as advanced, and 15% said beginner. This varied significantly by gender, with men being much more confident in their angling skills than women ($\chi 2=57.02$, df=2, $p<0.001$; Figure 31). This also varied by age, with self-rated skill level increasing as age class increased ($\chi 2=9.90$, df=4, $p<0.05$).

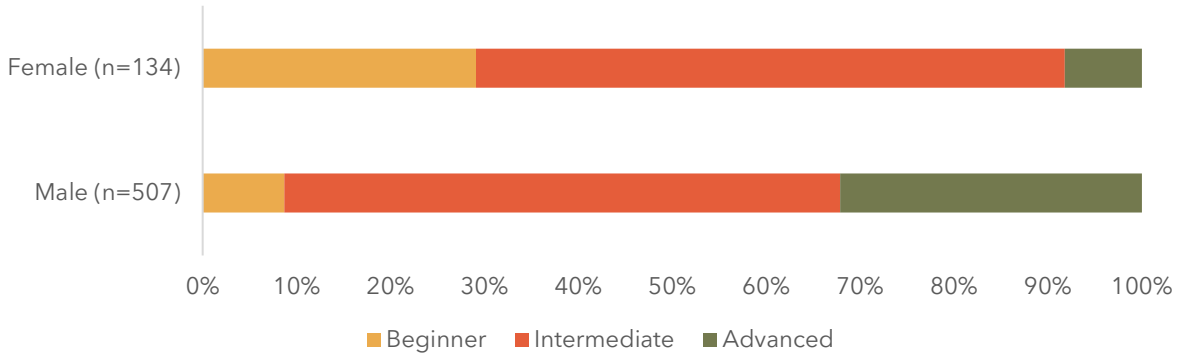

Figure 31: Comparing by gender how active anglers rate their skill level as an angler.

When asked about their confidence level in teaching others to fish, the plurality selected 'somewhat confident' (41%). Another 32% selected 'very confident', while 13% selected 'not so confident'. Ten percent said they were 'extremely confident', and 3% said they were not at all confident. This also varied significantly by gender, with 49% of men selecting that they were either extremely or very confident teaching

others, while only 22% of women selected these options combined ($\chi^2 = 44.07$, df = 4, $p < 0.05$). Also, almost three-fourths of respondents had taken someone else fishing in the last year. This response varied by gender and age class. Men were more likely to have taken someone than women ($\chi^2 = 44.07$, df = 4, $p < 0.05$), and anglers aged 18-34 were more likely to have taken someone compared to older anglers ($\chi^2 = 41.12$, df = 2, $p < 0.05$).

Bringing this back around to CTH fishing areas, we asked if knowing about CTH ponds impacts their likelihood of teaching someone new to fish. Overall, 68% stated it would have at least a moderate effect on their likelihood to teach others to fish (Figure 32). This varied significantly by age class as this was not likely to have an impact on anglers 18-34 at as high of a rate as older anglers ($\chi^2 = 17.09$, df = 8, $p < 0.05$).

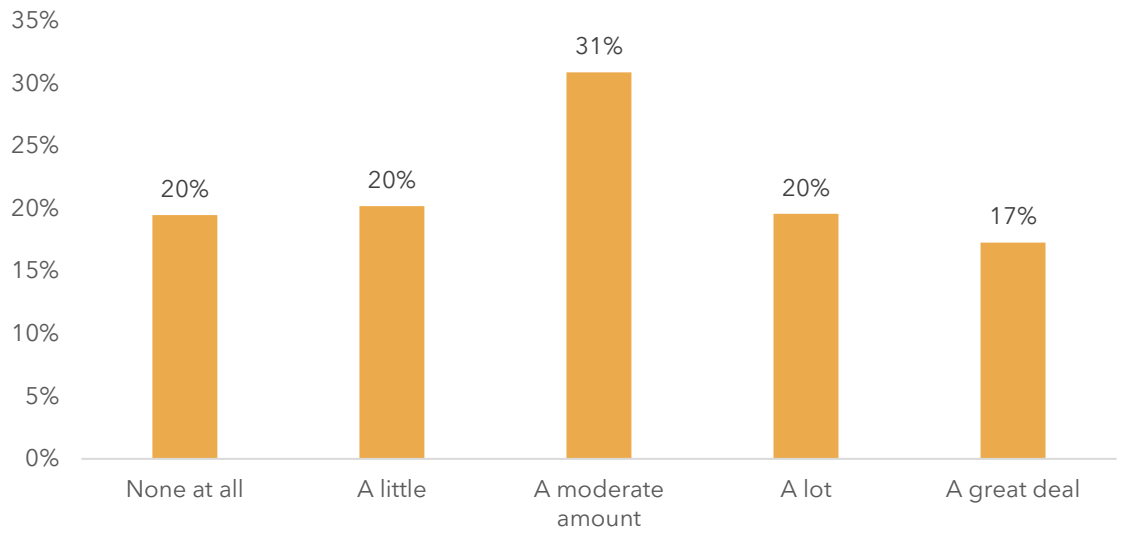

Figure 32: Impact of being familiar with CTH ponds on their likelihood to take someone new fishing (weighted n=175.72)

Differences between Active and Lapsed Anglers

Across the surveys sent to active and lapsed anglers, five questions overlapped to give us a sense of how responses varied by their position as an active angler to be retained or a lapsed angler to be reactivated.

What aspects of fishing are important

First, we can examine the differences that emerged when we asked them to identify important aspects of fishing in Oklahoma in general and at CTH ponds. First, I wanted to determine if there were differences simply in the number of important reasons individuals chose. Across all reasons, generally and specifically for fishing at CTH ponds, I summed up the number of responses each respondent selected. Then, I conducted a two-sample t-test comparing the mean number selected between lapsed anglers and active anglers. There was a significant difference in the number of chosen responses when fishing generally in Oklahoma, alluding to the fact that active anglers have more requirements for their fishing trips compared to lapsed anglers ($p<0.05$; lapsed anglers selected on average 3.8 responses while active anglers selected 4.5 responses). When it came to comparing the number of chosen responses for CTH ponds, there was not a significant difference ($p>0.05$; lapsed anglers selected on average 3.9 responses while active anglers selected 4.1 responses).

Although the number of selected reasons varied when looking at fishing in Oklahoma generally, only a few response options were significantly different between lapsed and active anglers. Those that were significantly different were, catching fish to eat, the excitement of fishing, location near where the angler lives, and teaching others to fish (Fig. 33).

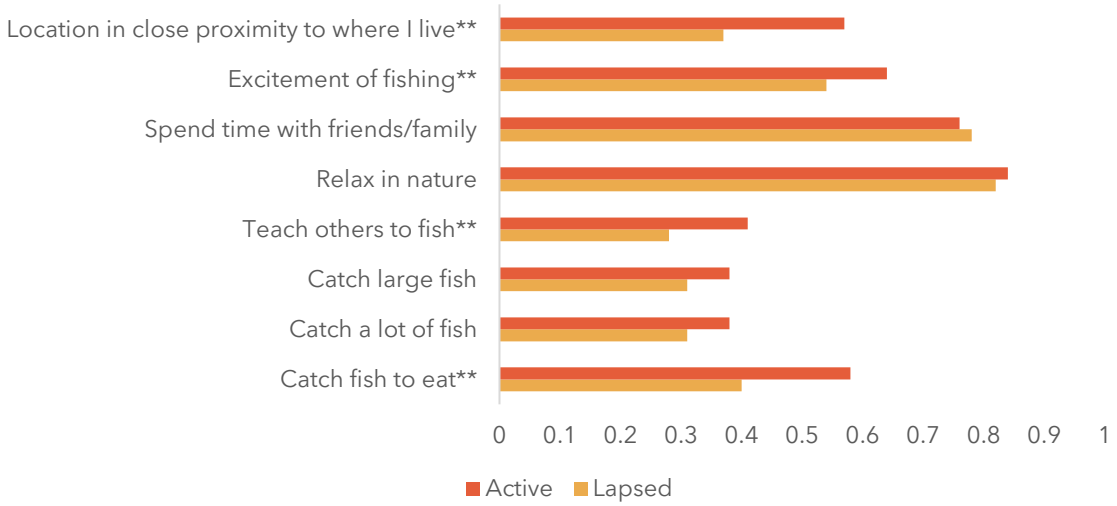

Figure 33: Reasons that are important to an angler when fishing generally in Oklahoma separated by active anglers and lapsed anglers (significant differences denoted by **)

Lapsed and active anglers did not differ in the number of reasons they chose as important when fishing CTH ponds, which may imply that active anglers have fewer expectations for important aspects at CTH ponds. The elements that were significantly different at CTH ponds were spending time with friends and family and teaching others to fish (Fig. 34).

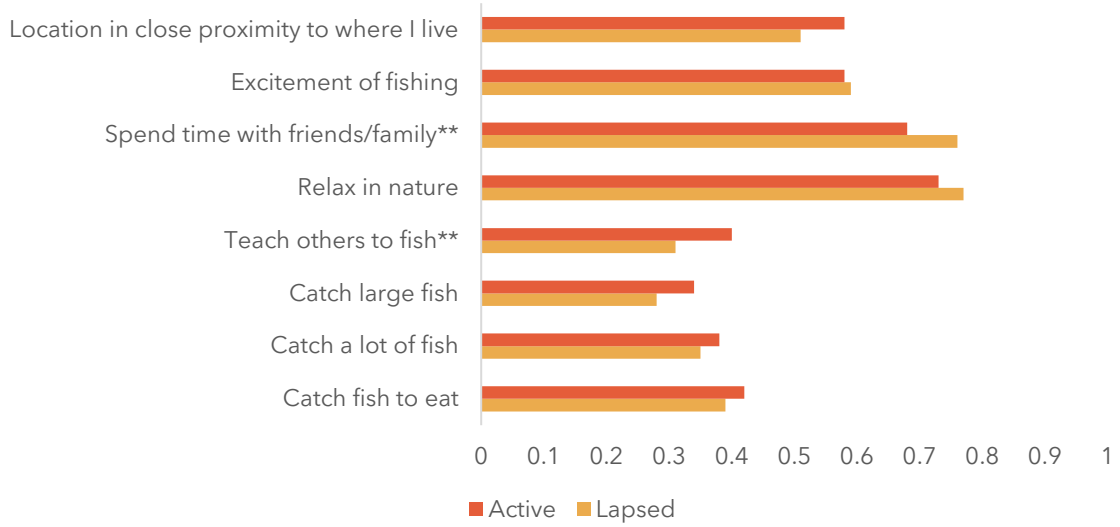

Figure 34: Reasons that are important to an angler when at CTH ponds in Oklahoma separated by active anglers and lapsed anglers (significant differences denoted by **)

Potential Impact of CTH ponds

In both surveys, we asked respondents about the impact of knowing CTH ponds exist on their fishing activity. For active anglers, this question was asked of those who said they don't fish as much as they would like each year, and it asked how CTH ponds would encourage them to fish more often. For lapsed anglers, the question was whether CTH ponds influenced their likelihood of returning to fishing. We applied design-specific weights to these respondent groups, combined them, and performed a chi-squared test. There were no significant differences found between active anglers and lapsed anglers and the impact CTH ponds would have on their fishing activity ($\chi^2 = 2.56$, df = 2, p =0.28; Fig. 35). Both groups reported a strong positive impact.

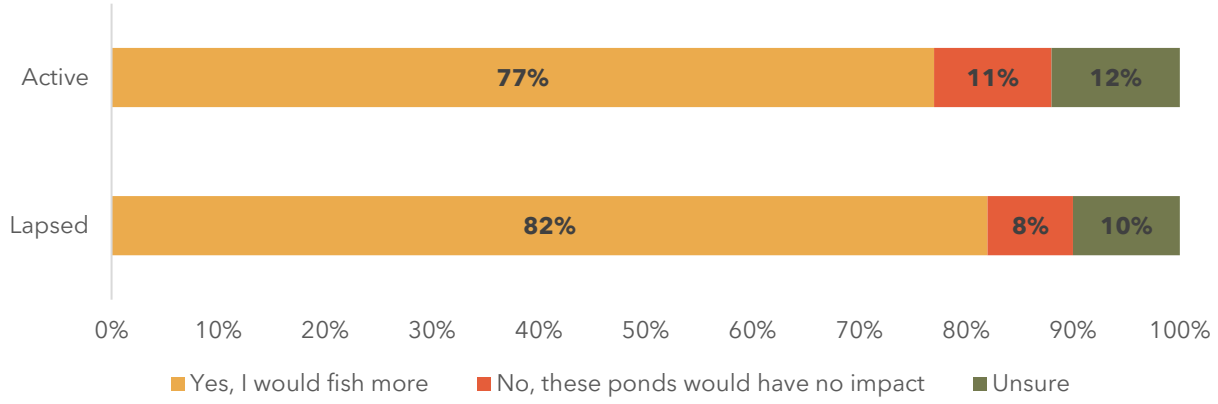

Figure 35: Active and lapsed anglers and their response to a proposed question in relation to CTH ponds impacting their fishing activity after they learned of their existence (Active weighted n=482; lapsed weighted n=221)

Species Preference

We compared species preference across active and lapsed anglers. We created weighted contingency tables for each sample and bound them together to run a chi-squared test. When comparing only the species that are currently stocked (sunfish, catfish, and bass), there was a significant difference in what active anglers and lapsed anglers prefer ($\chi^2 = 47.87$, df = 2, $p < 0.05$; fig. 36). Active anglers prefer bass and sunfish at a higher rate, while lapsed anglers prefer catfish at a higher rate with bass still being the most often selected fish by both lapsed and active anglers.

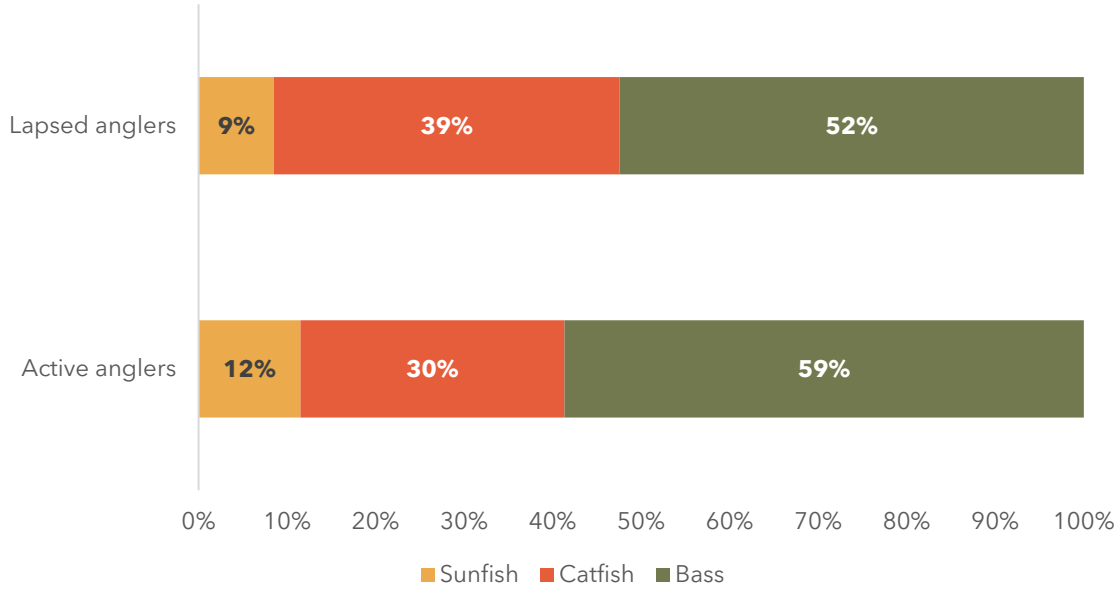

Figure 36: Comparison in species preference at CTH ponds between active and lapsed anglers (weighted n lapsed =159; weighted n active= 455).

As with lapsed anglers, we also asked active anglers about the prioritization of amenities at CTH fishing locations. We proposed docks for fishing, a sense of safety, and the option to fish from the bank, and asked about the level of priority each would receive. Bank fishing showed higher prioritization among active anglers compared to lapsed anglers and was significantly different, as determined by a chi-squared test of significance ($p < 0.05$; fig. 37).

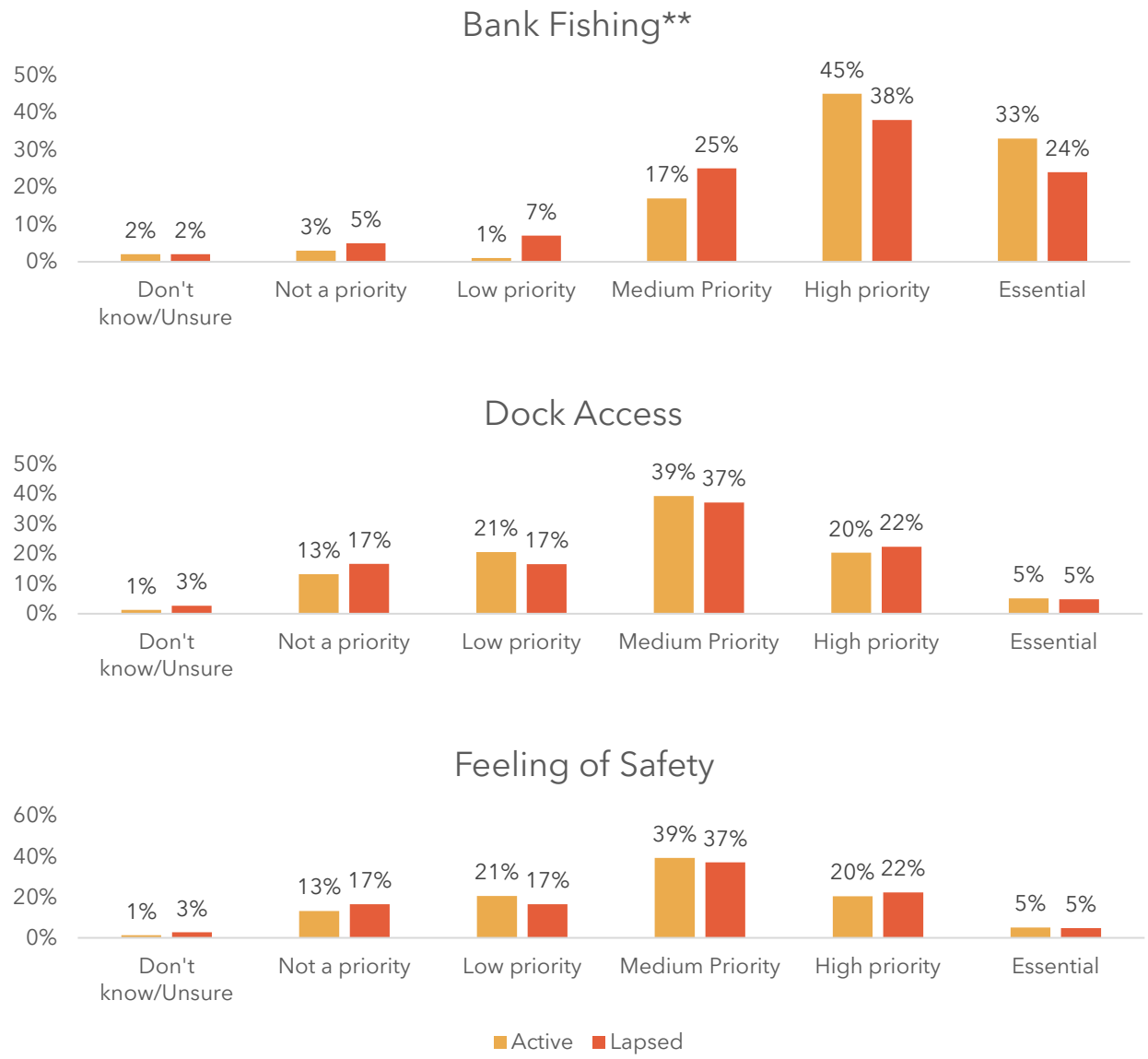

Figure 27: Comparison between lapsed anglers and active anglers in how they would prioritize bank fishing, dock access, and a feeling of safety (denotes a statistically significant difference between active anglers and lapsed anglers)**

Discussion

The Wildlife Department invests in the CTH fishing program, along with metropolitan municipalities, to provide quality fishing experiences where most of Oklahoma's population lives. One of the Wildlife Department's goals is to recruit, retain, and reactivate fishing license holders. These survey efforts helped us understand the constituencies that fall into each potential strategy, allowing us to tailor management and communications accordingly. As the program continues to grow and management intensifies in the coming years, we want to ensure that resources, both in terms of on-the-ground hours and resource allocation, are applied most effectively to achieve increased visitation across angler types, along with high satisfaction. Targeted anglers span demographic variables (gender, age, income level, and race/ethnicity) and stages of angling journey (current license holder, lapsed license holder, potential license holder). Some key insights to take away from this survey effort are which area characteristics lapsed anglers and non-anglers most desire; which species anglers prefer; which types of educational clinics may bring them to the CTH ponds and introduce them to the areas; and if there are aspects we can better communicate about to overcome barriers to fishing.

Overcoming barriers to fishing

In each survey the Wildlife Department conducts, the top reason hunters and anglers do not participate in hunting and fishing is that they have other priorities that pull on their available time. This reason for lower participation is largely beyond the Wildlife Department's control. Although providing a fishing opportunity close to their homes can reduce the time required to fish, it may allow those who wish to fish again or more often to fit this recreational activity into their busy schedules. After "other priorities", lapsed anglers stated that what has kept them from going fishing and, in turn, purchasing a fishing license in the last three years is that they are unsure where to fish, and that it is too expensive. CTH ponds were created for this. The anglers in this survey live within 15 minutes of a fishing area. If they knew these areas existed and were also inexpensive to reach, fishing would increase. Combining these responses, this equates to 25% of lapsed anglers who could potentially be reactivated if they felt that CTH ponds minimized their main barrier to re-entry. Extrapolating this to our population of metro-area lapsed anglers (39,656), we could stand to reactivate 9,914 anglers. Communication about CTH ponds and the benefits they could provide to metro anglers will be crucial, as 82% of these anglers are

unaware of the program, and among those unaware, 82% said they would be likely to start fishing again.

Active anglers reported similar responses, with the weighted mean of other priorities having the highest value, meaning it was selected most often, but not enough time to drive to fishing spots, and not sure where to go were selected highly, as well as reasons that keep active anglers from fishing as often as they would like to. When anglers do not fish as much as they would like, this may increase their likelihood of churn and of being characterized as a lapsed angler. Maintaining fishing as a consistent activity in their lives may encourage them to continue. Forty percent of active anglers selected not enough time to drive to fishing spots as a reason for not fishing as much as they would like, while 34% chose don't know where to go. Extrapolating this to the population of active metro-based anglers (282,392 anglers), an estimated 112,957 individuals consider drive time a factor, and 96,013 consider location uncertainty a factor in their fishing. With some overlap in individuals selecting both reasons, discussing CTH ponds as a solution to these problems could help the Department increase fishing level satisfaction by at least 112,957 anglers in the metropolitan areas of Oklahoma. With higher satisfaction in their angling activity, this number of anglers could be less likely to churn and lapse. 70% of these individuals stated that learning about CTH ponds would increase their fishing activity.

In the general population, the top two reasons that have kept those interested from fishing in the past were that they don't have the equipment or that that they don't know where to go. Through better communication we can ease the barrier of the public not knowing about the programs that the Wildlife Department offers. If we invest some resources into the Close to Home program and fishing clinics, we may also be able to alleviate the issue of those individuals not having the necessary equipment. This may also be related to communications by creating an easy how-to guide on an introductory set-up to go out fishing.

Strategic communications strategies and targeted management for increased CTH awareness and use

To create effective communication strategies, we need to understand which messages will best convey the benefits of CTH ponds to anglers. It is best if we know broadly why they value fishing and their behavior related to fishing, so that we can

create messages that speak to their core desires while also aligning with what they are currently doing or are interested in doing. Aesthetic reasons are of consistent importance to both lapsed, active and potential anglers and across demographic groups. A place to relax, a place to spend time with friends and/or family, and an exciting time fishing are important to anglers of all types. If we can highlight these aspects of CTH ponds, it will pique the interest of a wide range of anglers and increase their interest in subsequent messaging. Beyond these aesthetic reasons, catching fish to eat is important to lapsed anglers, as is the location of their fishing being close to where they live, falling under consumptive and convenience reasons. Sport reasons, such as catching large fish and catching a lot of fish, were rated lower.

In the general population we also asked about their feelings that being outdoors contributes to positive mental health. There was strong support of this statement so this may also be a way to encourage those who haven't fished to participate. By promoting it as beneficial to their mental health, it may make those interested more likely to try.

Desired experience at CTH ponds

People are more willing to try new places if they know that the areas they plan to visit have the infrastructure that they desire or believe should be there. This is centered on Social Cognitive Theory, in that norms play a role. If something is as they think it should be, then they are more likely to participate.

If we are managing for metropolitan anglers who have not used these areas before, we can look at what they consider important when fishing in Oklahoma generally. They enjoy fishing to relax and spend time with friends and family, and they also want an exciting time while they fish. Based on demographic variables, some reasons are more or less important. Still, these reasons are consistent across demographics and will resonate with all audiences, prompting them to fulfill those values by fishing at CTH ponds. Bank fishing tends to be a higher priority for both lapsed and active anglers overall, along with safety. Safety was much more important to women across the board, which is important for convincing families to use these areas. Previous research has shown that women typically oversee family schedules. Suppose we communicate the safety of these areas and the ability to spend time with friends and family. In that case, women may be more likely to incorporate these opportunities

into their family schedules. One issue when communicating safety is that the Wildlife Department does not have control over the areas around CTH ponds. Municipalities are typically responsible for the parks or areas around the ponds. Without control over the area, it may be tricky to convey the promise of a safe experience.

The majority of the general population also expects to feel safe followed by an expectation of accessibility which was also selected by 46% of individuals. When talking to the general population about these areas they want to know about the safety of the area followed by the parking situation and if there are bathroom facilities.

Both active and lapsed anglers said that they would prefer to target bass at CTH ponds. Catfish was the second most preferred, and sunfish was the least preferred. Active anglers also wrote in crappie at a high rate, and trout was written in less often. For lapsed anglers, the third most selected option was having no preference for species, signaling a less avid orientation toward species-specific preferences. Lapsed anglers again wrote in crappie and trout. In lapsed anglers, non-white anglers were more interested in catfish than white anglers, which could hint at a desire to catch fish to eat, but this was not reflected in a higher instance of selecting catch fish to eat as an important factor at CTH ponds. There seems to be a dichotomy of anglers who prefer bass seeing these areas as a place to participate in sport fishing while non-bass anglers would see the importance of these areas lying in spending time with friends and family and teaching others to fish with the added goal of a successful meal which is considered a keystone of a recruitment experience.

Recommendations

- Create a score card to assess Close to Home ponds and their characteristics that anglers desire- rate current ponds on this classification system to determine future viability of the pond as a member of the program.
- Bass was of most interest to be stocked. If this is not possible at all ponds, we may create bass management-focused 'CTH' ponds and highlight those areas for bass-focused anglers who want a different experience than those who are not focused on bass.
- Over ¾ of active anglers and ¾ of lapsed anglers said they would use the ponds once they were aware of them and what they are. Targeted communication will be critical to metro-based anglers of all types so that awareness is increased. We should plan to ask this question on the 2026 Statewide Angler Survey and compare the results with the results from 2019 of awareness (35% of active metro anglers were familiar with the program in 2019; 42% either somewhat or very familiar with these ponds in 2024).
- The likelihood of individuals using the ponds to mentor new anglers once they know about their availability is consistent across species preference, so all ponds could be marketed as a mentorship opportunity.
- Continue with creel surveys to better understand active users and what they are catching. This will assist with species management.
- We need to figure out how to increase the feeling of safety at CTH ponds. This will need to be done in partnership with municipalities, so editing MOUs or meeting with them to ensure ways forward could be beneficial to the growth of this program.
- We need to bolster the confidence level of women and their skills as anglers. Once someone rated themselves as higher in skill they were more likely to take someone else fishing. If women are responsible for the schedules and they are confident in teaching they may choose to mentor an angler as a family activity.
- Need to consider the difference in how we talk about R3 between men and women. Women are less confident in their skills as an angler and less inclined to mentor and make fishing a priority in their schedules. Men are more likely to be mentors and find time in their schedules to pursue hobbies like fishing. For women, we need to talk about the convenience of fishing spots, the amenities/infrastructure available, and the safety of the area.

Appendix A: General Population- Recruitment Survey

1. Have you ever been fishing in Oklahoma?
    a. Yes
    b. No
2. How long has it been since you last went fishing?
    a. Within the last year
    b. 1-3 years ago
    c. 4-10 years ago
    d. Over 10 years ago
3. Would you be interested in fishing in Oklahoma in the future?
    a. Yes
    b. No
4. Why are you interested in fishing in the future? *Check all that apply*.
    a. Would like to learn a new skill
    b. Spending time with friends/family
    c. Seems like a fun thing to do
    d. Would like to catch fish to eat
    e. Something to do outside
    f. Experiencing the excitement of catching a large fish
    g. Experiencing the excitement of catching a lot of fish
    h. Other (please specify) _____
5. What has kept you from going fishing in the past? *Check all that apply*.
    a. Too expensive
    b. I don't have the equipment
    c. I don't know anyone who goes fishing
    d. Too far to drive to a fishing spot
    e. I don't know where to go fishing
    f. I don't have the time for new hobbies right now
    g. Other (please specify) _____
6. Do you know anyone that goes fishing?
    a. Yes
    b. No
7. When trying out fishing, would you rather learn to fish from the Wildlife Department as part of a free fishing clinic or from someone you know?
    a. Wildlife Department fishing clinic
    b. Someone I know
    c. No preference
8. Have you heard of the Wildlife Department's close to Home fishing ponds?
    a. Yes
    b. No

9. Close to Home fishing ponds are small water bodies the Wildlife Department stocks with fish in metropolitan areas meant to provide fishing opportunities close to home. Some people may find it easier to try out fishing if there are locations close to where they live.

   Knowing there are public fishing areas within a 20-minute drive from your home does your likelihood to try out fishing change?
   a. Yes, I would be more likely to try out fishing knowing these areas are close to my home.
   b. No, having these areas close to my home would not influence my likelihood to try out fishing. If no, please explain _____
   c. Unsure
10. What would you expect to have at a pond close to your home that would assist you in fishing? *Check all that apply*.
   a. Fishing events
   b. Signage
   c. Accessibility (easy parking, sidewalks, etc.)
   d. Feeling safe
   e. Other (please specify) _____
   f. Unsure/Don't know
11. Do you know how to purchase a fishing license from the Wildlife Department?
   a. Yes
   b. No
12. Which of the following outdoor activities do you participate in?
   a. Hunting
   b. Hiking
   c. Wildlife watching
   d. Nature photography
   e. Gardening
   f. Running and/or walking
   g. Biking
   h. Other (please specify) _____
   i. None of the above
13. To what extent do you agree or disagree with the following statement:

   Being in the outdoors is beneficial to my mental health.
   a. Strongly disagree
   b. Disagree
   c. Neither agree nor disagree
   d. Agree
   e. Strongly agree

14. Do you visit city parks close to your home?
    a. Yes. If yes, what parks do you visit? _____
    b. No
15. When visiting a new outdoor space, what information do you like to know about the area ahead of time? *Check all that apply*.
    a. Parking availability
    b. Availability of bathroom facilities
    c. Rules and regulations of the area
    d. Safety of the area
    e. Area photos
    f. Other (please specify) _____
16. What is your age?
    a. 18 to 24
    b. 25 to 34
    c. 35 to 44
    d. 45 to 54
    e. 55 to 64
    f. 65 to 74
    g. 75 or older
    h. Prefer not to say
17. What is your gender?
    a. Female
    b. Male
    c. Prefer not to say
18. What is your total household income?
    a. Less than $20,000
    b. $20,000 to $34,999
    c. $35,000 to $49,999
    d. $50,000 to $74,999
    e. $75,000 to $99,999
    f. $100,000 to $149,999
    g. $150,000 or More
    h. Prefer not to say
19. What is your race or ethnicity?
    a. Asian
    b. Black or African American
    c. Hispanic or Latino
    d. Middle Eastern or North African
    e. Multiracial or Multiethnic

f. Native American or Alaska Native
g. Native Hawaiian or other Pacific Islander
h. White
i. Another race or ethnicity, please describe below
j. Prefer not to say
k. Self-describe below: _____

20. Do you have any other comments/concerns you would like to share with the Oklahoma Department of Wildlife Conservation?

    If you would like to learn more about fishing and Close to Home areas, please visit our website by clicking this link: Where to Fish _____

Appendix B: Lapsed Angler- Reactivation Survey

1. Our records show that you previously held a fishing license with the Oklahoma Department of Wildlife Conservation but have not purchased a fishing license in the last three years. What is the main reason you have not purchased a fishing license in the last three years?
    a. No one to go with
    b. Not sure where to go fishing
    c. Not sure how to purchase a licnese
    d. Too expensive
    e. Other priotiries
    f. Move out of Oklahoma
    g. Health issues
    h. Other (please specify)
2. To what extent are you interested or uninterested in fishing again in the future?
    a. Not at all interested
    b. Not so interested
    c. Somewhat interested
    d. Interested
    e. Very interested
3. In general, which of the following reasons are important to you when fishing in Oklahoma? *Check all that apply*.
    a. Catch fish to eat
    b. Catch a lot of fish
    c. Catch large fish
    d. Teach others to fish
    e. Relax in nature
    f. Spend time with friends/family
    g. Excitement of fishing
    h. Location in close proximity to where I live
4. Have you heard of the Close to Home fishing program?
    a. Yes
    b. No
5. Have you fished a Close to Home fishing area?
    a. Yes
    b. No
    c. I don't remember/Unsure
6. To what extent were you satisfied or unsatisfied with your fishing experience at a Close to Home pond?
    a. Very unsatisfied
    b. Unsatisfied

c. Neither satisfied nor dissatisfied
d. Satisfied
e. Very satisfied
f. Don't remember/Unsure
g. Please explain: _____

7. Close to Home fishing ponds are small water bodies the Wildlife Department stocks with fish in metropolitan areas to provide fishing opportunities close to home. Some people may find it easier to fish at locations close to where they live.

   Knowing there are public fishing areas within a 20-minute drive from your home does your likelihood to start fishing again increase?

   a. Yes, I would be more likely to start fishing again knowing that these areas are areas close to where I live
   b. No, having these areas close to my home would not influence my fishing activity. If no, please explain: _____
   c. Unsure

8. Close to Home ponds are typically stocked with sunfish and/or catfish, while bass may be present.

   Which of the following species would you most prefer to target at a Close to Home pond?

   a. Catfish
   b. Sunfish
   c. Bass
   d. Other (please specify) _____
   e. No preference

9. If you were to fish at a Close to Home pond, to what extent would you prioritize the following characteristics of the area?

	Not a priority	Low priority	Medium priority	High priority	Essential	Don't know/Unsure
Ability to fish from the bank						
A feeling of safety						
Opportunity to fish from a dock						

10. Previously, we asked you to select all of the important aspects of fishing generally. Now, please select each of the following aspects that would be important to you when fishing at a Close to Home Pond. *Check all that apply*.
    a. Catch fish to eat
    b. Catch a lot of fish
    c. Catch large fish
    d. Teach others to fish
    e. Relax in nature
    f. Spend time with friends/family
    g. Excitement of fishing
    h. Location in close proximity to where I live
11. To what extent would you be interested in educational clinics at our Close to Home ponds?
    a. Not at all interested
    b. Not so interested
    c. Somewhat interested
    d. Very interested
    e. Extremely interested
12. Which of the following topics would be of interest to you as you begin fishing again? *Check all that apply*.
    a. Where to go
    b. Bait and tackle options for fish
    c. How to clean and cook a fish
    d. Learning new fishing techniques
    e. Other (please specify) _____
    f. None of the above
13. Are there any things that would make you fish more often/start fishing again? *Check all that apply*.
    a. If I had more time
    b. Invitation from a friend or family member
    c. A child asked to be taken fishing
    d. If places were more convenient
    e. If I felt safe at the locations I fished
    f. Lower prices
    g. Better amenities at my fishing spots
    h. Other (please specify) _____
14. What is your age?
    a. 18 to 24
    b. 25 to 34
    c. 35 to 44

d. 45 to 54
e. 55 to 64
f. 65 to 74
g. 75 or older
h. Prefer not to say

15. What is your gender?
    a. Female
    b. Male
    c. Prefer not to say
16. What is your total household income?
    a. Less than $20,000
    b. $20,000 to $34,999
    c. $35,000 to $49,999
    d. $50,000 to $74,999
    e. $75,000 to $99,999
    f. $100,000 to $149,999
    g. $150,000 or More
    h. Prefer not to say
17. What is your race or ethnicity?
    a. Asian
    b. Black or African American
    c. Hispanic or Latino
    d. Middle Eastern or North African
    e. Multiracial or Multiethnic
    f. Native American or Alaska Native
    g. Native Hawaiian or other Pacific Islander
    h. White
    i. Prefer not to say
    j. Another race or ethnicity, please describe below
    k. Self-describe below: _____
18. Do you have any other comments/feedback about Close to Home fishing areas?
    For more information, please follow this link: Close to Home Ponds _____
19. The first 500 individuals to respond to this survey will be emailed a link to collect their free annual subscription to Outdoor Oklahoma magazine. If you would like to be considered for this deal please enter your email address here: _____

Appendix C: Active Angler- Retention Survey

1. In general, which of the following reasons are important to you when fishing in Oklahoma?
    a. Catch fish to eat
    b. Catch a lot of fish
    c. Catch large fish
    d. Teach others to fish
    e. Relax in nature
    f. Spend time with friends/family
    g. Excitement of fishing
    h. Fishing location close to where I live
    i. Other (please specify)
2. To what extent do you agree or disagree with the following statement: I fish as much as I would like to each year.
    a. Strongly disagree
    b. Disagree
    c. Neither agree nor disagree
    d. Agree
    e. Strongly agree
3. What factors contribute to you not being able to fish as much as you would like? *Check all that apply*.
    a. Other priorities
    b. Not enough time to drive to fishing spots
    c. Too expensive
    d. Don't know where to go
    e. No one to go with
    f. Health issues
    g. Don't catch enough fish
    h. No longer exciting to go fishing
    i. Other (please specify) _____
4. Close to Home fishing ponds are small water bodies the Wildlife Department stocks with fish in metropolitan areas meant to provide fishing opportunities close to home. Some people may find it easier to fish more if there are locations close to where they live.

    Knowing there are public fishing areas within a 20-minute drive from your home does your likelihood to fish as much as you'd like increase?
    a. Yes, I would be more likely to fish as much as I would like knowing these fishing spots are close to my home.
    b. No, having these fishing spots close to my home would not influence my fishing activity. If no, please explain: _____
    c. Unsure

5. How familiar are you with the Wildlife Department's Close to Home fishing program?
    a. Not at all familiar
    b. Not so familiar
    c. Somewhat familiar
    d. Very familiar
    e. Extremely familiar
6. Close to Home fishing ponds are small water bodies the Wildlife Department stocks with fish in metropolitan areas meant to provide fishing opportunities close to home. Some people may find it easier to fish more if there are locations close to where they live.

    Knowing there are public fishing areas within a 20-minute drive from your home would you be likely to use these areas?
    a. Yes, I would be interested in fishing at these areas.
    b. No, I would not be interested in these areas. If no, please explain: _____
    c. Unsure
7. Have you ever used the Close to Home Fishing areas?
    a. Yes
    b. No
    c. Unsure
8. What Close to Home area have you fished most recently? *If unsure, please select other and write in the City the pond you fished was in.* _____
9. How would you rate the cleanliness of the water at {{ Q7 }}?
    a. Not at all clean
    b. Not so clean
    c. Somewhat clean
    d. Very clean
    e. Extremely clean
10. How would you rate the cleanliness of the area surrounding the pond at {{ Q7 }}?
    a. Not at all clean
    b. Not so clean
    c. Somewhat clean
    d. Very clean
    e. Extremely clean
11. Did you feel welcome at {{ Q7 }}?
    a. Yes
    b. No
    c. Please explain: _____
12. To what extent were you satisfied or unsatisfied with the Close to Home pond at {{ Q7 }}?
    a. Very unsatisfied
    b. Unsatisfied

c. Neither satisfied nor dissatisfied
d. Satisfied
e. Very satisfied

13. Overall, how likely or unlikely are you to recommend Close to Home fishing ponds to other anglers you know?
    a. Very unlikely
    b. Unlikely
    c. Neither likely nor unlikely
    d. Likely
    e. Very likely
14. Close to Home ponds are typically stocked with sunfish and/or catfish, while bass may be present.
    Which of the following species would you most prefer to target at a Close to Home pond?
    a. Catfish
    b. Sunfish
    c. Bass
    d. Other (please specify) _____
    e. No preference
15. If you were to fish at a Close to Home pond, to what extent would you prioritize the following characteristics of the area?

	Not a priority	Low priority	Medium priority	High priority	Essential	Don't know/Unsure
Ability to fish from the bank						
A feeling of safety						
Opportunity to fish from a dock						

16. Previously, we asked you to select all of the important aspects of fishing generally. Now, please select each of the following aspects that would be important to you when fishing at a Close to Home Pond. *Check all that apply*.
    a. Catch fish to eat
    b. Catch a lot of fish
    c. Catch large fish
    d. Teach others to fish
    e. Relax in nature
    f. Spend time with friends/family
    g. Excitement of fishing

h. Location in close proximity to where I live
i. Other (please specify) _____

17. Do you have friends or family that don't currently fish but would be interested in fishing?
    a. Yes
    b. No
    c. Unsure
18. What is your skill level as an angler?
    a. Beginner
    b. Intermediate
    c. Advanced
19. How confident do you feel in your ability to teach others to fish?
    a. Not at all confident
    b. Not so confident
    c. Somewhat confident
    d. Very confident
    e. Extremely confident
20. Have you taken someone else fishing in the last year?
    a. Yes
    b. No
21. To what extent does having a fishing area close to where you live impact the likelihood of you teaching someone new to fish?
    a. None at all
    b. A little
    c. A moderate amount
    d. A lot
    e. A great deal
22. What is your age?
    a. 18 to 24
    b. 25 to 34
    c. 35 to 44
    d. 45 to 54
    e. 55 to 64
    f. 65 to 74
    g. 75 or older
    h. Prefer not to say
23. What is your gender?
    a. Female
    b. Male
    c. Prefer not to say
24. What is your total household income?

a. Under $15,000
b. Between $15,000 and $29,999
c. Between $30,000 and $49,999
d. Between $50,000 and $74,999
e. Between $75,000 and $99,999
f. Between $100,000 and $150,000
g. Over $150,000
h. Prefer not to say

25. What is your race or ethnicity?
    a. Asian
    b. Black or African American
    c. Hispanic or Latino
    d. Middle Eastern or North African
    e. Multiracial or Multiethnic
    f. Native American or Alaska Native
    g. Native Hawaiian or other Pacific Islander
    h. White
    i. Prefer not to say
    j. Another race or ethnicity, please describe below
    k. Self-describe below: _____
26. Do you have any other comments/feedback about Close to Home fishing areas? For more information, please follow this link: Close to Home Ponds _____
27. The first 500 individuals to respond to this survey will be emailed a link to collect their free annual subscription to Outdoor Oklahoma magazine. If you would like to be considered for this deal please enter your email address here: _____